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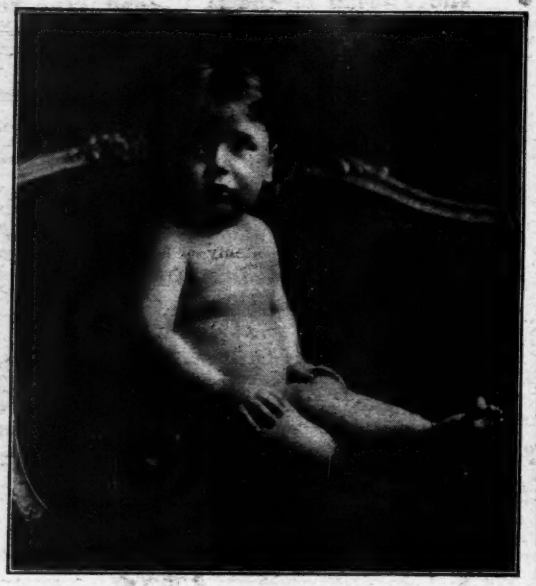

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VOL. I.—4TH YEAR. SYDNEY: SATURDAY, MAY 5, 1917. No. 18.

SOME NOTES ON THE WORK DONE BY A FIELD AMBULANCE IN FRANCE.

By E. M. Ramsden, M.B. (Syd.),
Major, 1st Field Ambulance, Australian Imperial Force.

To those medical men preparing to go to field units, and to those going forward to casualty clearing stations and base hospitals, some experience gained during two and a half years' association with a field ambulance may be of interest.

Most people are quite cognizant with the work done during the first eighteen months of the war, terminating with the evacuation of the Peninsula. With this period I will not concern myself. After leaving the first Light Horse Field Ambulance in January, 1916, I joined the First Field Ambulance attached to the 1st Australian Division, and with them proceeded to France, in the early part of that year, proceeding overseas with the first and second Battalions under Lieutenant-Colonels J. Heane and Stevens. We landed at Marseilles, and the same night entrained for Northern France. On arrival there we were billeted in the villages of Strazeele and Pradelle, the scene of many of the German atrocities during the early days of the war.

The Division to which I was attached then moved forward, to take over the line stretching south of Armentières. Here, as a field ambulance, in addition to the evacuation of the sick and wounded of our Brigade, we started divisional baths and laundry in two large buildings, formerly breweries, a couple of hundred yards apart. As many as fifteen hundred men have been bathed here in one day, the system being as follows: The men filed in, in companies or half-companies, as the case may be, and deposited their uniforms and puttees, etc., with identification disc attached. These were immediately taken to some twenty-five or more women, who ironed the seams, etc., for the purpose of destroying body lice. The men then handed in the singlets, under-trousers, shirts and socks, and were handed a metal disc for each of these articles. On presenting these discs at another window they obtained clean articles in lieu of the soiled ones, and then, with clean towels and soap, proceeded to tubs filled with hot water, and had a health-giving, refreshing bath. These men then marched off with perfectly clean underclothing and well-ironed uniforms, more or less new men. Here, then, let us leave the side issues of field ambulance and return to its main function.

The wounded on the Petillon Sector were evacuated as follows: The wounded were carried back down the communication trenches by regimental and ambulance stretcher-bearers to two advanced dressing stations; thence by rubber-tyred wheel stretchers to an old *estaminet* used by us as a waggon *rendez-vous*, and from this place they were taken in motor-cars to the main ambulance dressing station in the next village, or straight to the first Australian Casualty Clearing Station.

As a medical man, I should here like to record the excellent work done by the dentists attached to field medical units. The Australian Red Cross were also ever zealous in the work of providing any comforts available to the sick and wounded Australians in their area. We then became the ambulance destined to occupy what was known as the rest area, and had charge of what was called a rest station, a canvas or hut hospital, capable of holding anything from 500 to 1000 patients, and often, all too often, this accommodation was quite inadequate, necessitating, as it did, a disadvantageous evacuation of lightly sick and wounded to the casualty clearing station, and so a never-ceasing loss of men to the division. For once a man enters a casualty clearing station, his descent to the base is a rapid one indeed.

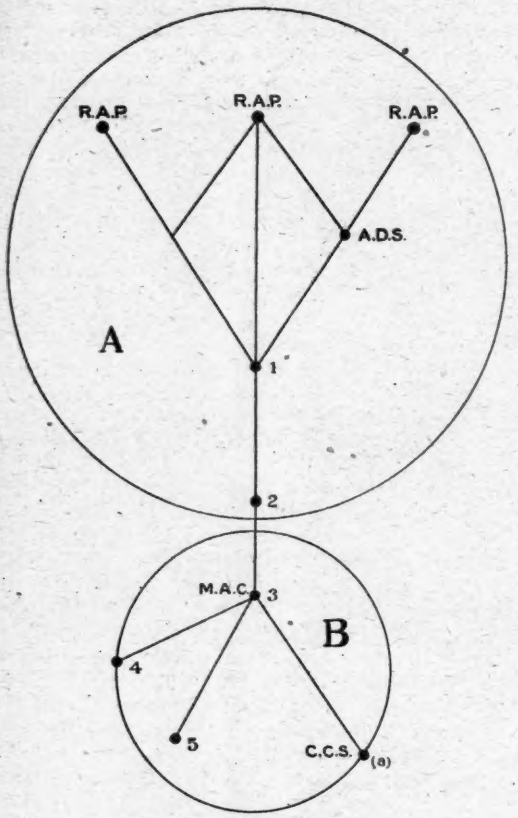
Notwithstanding the frequent request for field ambulances to be supplied with field travelling kitchens, this apparently could not be arranged, as our personnel was below the number entitled to a kitchen. This on the marches threw an unnecessary amount of work on the personnel of the ambulances, and on occasions undoubtedly interfered with their utility. We then went to Messines. Our advanced dressing station here was not far from Ploogsteerte, and was in charge of a member of my section, the late Captain S. M. Graham, of New South Wales, who so regrettably met his death later at the Casualty Corner Dressing Station, just below Pozières village. He was at all times a very fine officer indeed.

At Messines the greatest difficulty lay in the evacuation of the wounded during the day-time, taking, as it did, sometimes as long as eleven hours. The wounded in this area were sent to the British Clearing Stations at Bailleul. It was from this area that we marched to Bailleul and entrained for Doullens, *en route* for the Somme area, in the early days of July, 1916. During the heavy fighting on the Somme the ambulances became corps troops, and were worked as such, the system of working being as is shown in the diagram.

One ambulance was made responsible for the collecting area (circle "A" in the Diagram), and had attached to it stretcher-bearers of several other corps ambulances, together with their horse and motor ambulances, and personnel attached thereto. This ambulance then had the entire responsibility of seeing that all wounded in the front line areas were collected, and that all the regimental aid posts and advanced dressing stations were cleared of wounded. To do this, a sufficiency of medical men from other ambulances in the corps were attached to this parent ambulance, as we may call it, and were under the direction of its commanding officer.

During the Somme operations the headquarters of this ambulance was usually situated in an old *château*, with its advanced dressing stations considerably farther forward. A considerable amount

of work was done in these by the medical officers of field ambulances. The regimental medical dug-outs were usually some little distance further forward. All wounded then passed through these dressing stations, and thence by horse ambulances situated at the waggon *rendez-vous*, they were taken to the *château*. Here they were dressed, and had fresh field



Sketch of Lines of Evacuation (Somme Area).

M.A.C. = Motor Ambulance Convoy.
R.A.P. = Regimental Aid Post.
A.D.S. = Advanced Dressing Station.
C.C.S. = Casualty Clearing Station.
1. = Waggon *Rendez-vous*.
2. = Main Collecting Station, "The *Château*."
3. = Main Dressing Station, Antitoxin Serum given.
4. = Rest Station.
5. = Operating Centre.
(a). = Hospital Train alongside, and subsequent evacuation to Base Hospitals, etc.

medical cards attached. They then went on by motor cars to the main dressing station further back, this dressing station being entrusted to another field ambulance belonging to the same corps. Here all wounded were freshly dressed, received a dose of anti-tetanic serum, and were sent on either to the operating centre close by (all "acute abdomens" and head cases went here), or to the casualty clearing station further on, or to an adjacent rest station, again in charge of another field ambulance. In this rest station all men suffering from trivial wounds, and the slightly sick, were treated; that is, those men likely to be fit for active work in seven to ten days.

I might state here that on occasions I think there was some delay in the evacuation of wounded, owing to the too frequent dressing of wounds at the various dressing stations. Notwithstanding this, I think those responsible for the medical arrangements are certainly to be congratulated. The system is an extremely workable one, and went for in the direction of a comfortable and rapid form of evacuation of sick and wounded.

At the main dressing station the commanding officer in charge had at his disposal a large motor-ambulance convoy (M.A.C.), for conveyance of wounded to their various destinations. Even in the work done by field ambulances in the field it was early apparent to all that the sooner wounds were freely opened up and foreign bodies removed, and free drainage provided, the better the subsequent result was likely to be.

At the main dressing stations it was often found necessary to keep wounded men for some hours, owing to their greatly shocked condition; and I feel sure that the wise exercise of this practice saved many, who would otherwise, if too rapidly evacuated, have died of extreme shock.

We later on went to Ypres, and then to a line in front of Flers, and here much the same system of evacuation prevailed. And here, again, notwithstanding a very large rest station, many who might have been kept if it had been possible to provide increased accommodation at these rest stations, were evacuated through casualty clearing stations, and so lost to their units.

I cannot close this article without placing on record the magnificent work done by non-commissioned officers and men attached to the field ambulances, under conditions well calculated to try to the utmost the bravest and the strongest. They were at all times a self-sacrificing, hard-working body of men, and have earned for themselves a reputation that will not easily be forgotten by many a wounded man entrusted to their care. Many of the medical men, as regimental medical officers or field ambulance officers, also did exceedingly fine work. When all did so well it is impossible to particularize.

I have been asked concerning the equipment necessary for a medical man going to the front. May I answer it in this way? he wants to be equipped with but two things:

(1) The desire to work in any way to help the sick and wounded, and in any capacity.

(2) The will to do the work he is asked to do, which may often be diametrically opposed to the work he desires to do, and to remember he is serving his country and not himself.

One word more to those who are hesitating about going to the front, because, maybe, they have heard the rumour that there are more medical men there already than are necessary for the work. Let me give just this word of warning; all will be wanted this coming year. In my own ambulance alone three officers have become casualties, and many a man

who has been two and a half years away from Australia would gladly welcome relief. I wonder that this aspect of affairs has not occurred to many ere now.

VINCENT'S ANGINA IN LIVERPOOL CAMP.

By **H. Hastings Willis, B.Sc., M.B., Ch.M. (Syd.),**
Captain, Army Medical Corps, Australian Imperial Force.

The comparative rarity of Vincent's angina in civil and in hospital practice must be the excuse for the presentation of these notes upon a series of 18 cases of that condition which came under my notice at the Field Hospital, Liverpool, during the last year.

During that period sore throats, chiefly of the nature of post-nasal catarrh or simple pharyngitis, were unusually common in the Camp, but few membranous conditions were met with. Only 24 came under the notice of the Medical Service from a camp population which varied until February from 16,000 to 18,000, and after that month was more or less constant at 5,000. Of these 24, three were ultimately diagnosed as follicular tonsillitis, three as diphtheria and the remaining eighteen as Vincent's angina. This latter condition was therefore the commonest form of membranous sore throat we had to deal with. The distribution of the cases throughout the Camp did not suggest any special mode of transmission of the infection, the patients coming from different parts of the Camp, and no two consecutive cases coming from the same locality. In this respect the disease resembles the two principal infective diseases prevalent in the Camp—cerebro-spinal fever and pneumonia. The location of some of the earlier cases in the officers' mess of a certain battalion led us to suspect this as the nidus of the infection; but there is no other evidence to support such a view. The low-lying nature of the ground on which the Camp is situated, which has been considered responsible for much of the disease met with, evidently had little influence upon this infection, as some of the more severe cases came from the high ground of Casula Camp. As might be expected, the case incidence was greater in the winter months than in the summer.

The clinical features of the disease are suggestive of either diphtheria or syphilis, which were the usual admission diagnoses in the earlier cases. The patients all complained of pain on swallowing. This was the only symptom common to all the cases, and was always present. Other symptoms were often absent, though soreness of the throat was sometimes complained of. Swelling of the glands of the neck on the affected side was usually present, and in some cases was the chief complaint of the patient. The temperature varied from 99° F. to 101° F., though a few cases showed a rise to 103° F. Many were quite afebrile. The fever subsided in a few days with rest in bed, the temperature curve being of the intermittent type. The pulse was increased proportionately to the temperature, and of good tension. The patient's general condition was good, and, beyond the pain on swallowing, he was quite comfortable.

On inspection of the throat, what may best be described as a pultaceous membrane with ulceration was seen. According as the membrane or the ulcer was the predominating condition the cases could be classified into two types—ulcerative and membranous. In the ulcerative type there was often no sign of inflammation, but in a few cases slight redness of the fauces, without œdema, was present. The ulcer was situated most frequently on the posterior aspect of the tonsil, and was of variable depth. It was punched out in character, and very much like a syphilitic ulcer. Its position, and the absence of surrounding inflammation, would lead to the condition being often missed on casual examination, were it not for the presence of the characteristic symptom of severe pain on swallowing and the glandular swellings in the neck. Ulcers were often present on one side of the pharynx only; sometimes both tonsils were affected. The base of the ulcer was covered with a creamy, pultaceous exudate, which could easily be removed.

In the membranous type the exudate was the chief characteristic, ulceration being less marked and often unrecognized until the membrane had been removed. In this type, which was the less common, surrounding inflammation was more often present, and in three cases was accompanied by much œdema. In one case where both tonsils were affected, the pillars of the fauces and the uvula were so œdematous as to make swallowing impossible. This inflammation is probably secondary, and due to ordinary septic organisms. The breath of the patient in this type is usually very fœtid.

Swabbings of the membrane were always taken, and revealed the presence of the two causal organisms, the fusiform bacillus and the spirillum of Vincent. The diphtheria bacillus was not present, either in direct smears or in smears made from cultures.

Attempts to grow the causal organisms on ordinary laboratory media were made under both aerobic and anaerobic conditions, but without success. A growth of the fusiform bacillus was obtained on slices of sheep's kidney, incubated under anaerobic conditions, but attempts to obtain the organism in pure culture were unsuccessful. No growth of the spirillum was obtained.

For microscopic examination the smears were stained either with carbol-thionin blue or methylene blue. The former proved advantageous for demonstrating the spirilla, while the latter was the better for the bacilli, which stained rather too deeply with carbol-thionin. Under the $^1/_{12}$ inch oil immersion lens the spirilla appeared as long, thin threads, often massed together with pointed extremities. They were often bent, and the number of their turns was very variable. The fusiform bacilli were more often cigar-shaped than of the crescentic form shown in text-books, and exhibited considerable variation in size. Unstained septa were usually present, but not invariably. Ordinary septic organisms were always present. The relation of the spirilla to the bacilli as regards number was very variable. Sometimes the spirilla were numerous and the bacilli few; some-

times the opposite condition prevailed, while often they were present in approximately equal numbers. There appeared to be no relation between the preponderance of either of the organisms in the smears and the clinical type of the disease.

As regards treatment, probably any antiseptic local application would effect a cure, but the solution found most efficacious was a throat paint of silver nitrate (5 or 10 grains to the ounce). From a consideration of the anaerobic character of the organism, hydrogen peroxide would seem indicated, and this has been used successfully during the winter. Applied locally to the ulcer, and also as a mouth-wash, it has soon removed the membrane, and by inhibiting the growth of the causal organisms, has allowed the ulcer to heal. Recurrence of the condition after apparent cure has occurred in two cases, one of which was treated with silver nitrate, the other with hydrogen peroxide. After healing, the ulcer leaves a characteristic punched-out depression in the tonsil, the pathological condition evidently being a local necrosis, and healing taking place by growth of tonsillar mucosa over the floor of the ulcer.

The examination of the throats of contacts at intervals of a few days was adopted as a prophylactic measure against the spread of the disease, but in no case did a contact develope the condition. Smears prepared from the throats of contacts also failed to show the causal organisms.

That the condition is infectious is certain, but the mode of conveyance of the infection is not clear. As is the case with cerebro-spinal fever, contacts may play a part, as carriers, though not themselves developing the disease, but owing to the difficulty in culturing the organism, evidence on this point is difficult to obtain.

It is not without interest that at the time when this condition was first brought under our notice the Dental Officers had under their care several cases of rapidly-spreading ulcerative gingivitis of sudden and unexplainable onset, which, however, cleared up quickly under local treatment. Though examinations of the exudate in these cases failed to reveal either amœbæ or Vincent's organisms, the association of a similar case with Vincent's angina in a patient I have since treated leads me to suspect the Vincent's organisms as the cause of the condition.

Of the prevalence of Vincent's angina in other camps in Australia I have no knowledge, but I am given to understand that the condition has been met with among Australian troops in Egypt. Whether the disease was taken to Egypt by the troops or contracted by them there remains to be seen when the medical history of the war is written.

It would appear that Vincent's angina must be added to the list of those diseases with which we have become familiar as the result of the aggregation of men in camps consequent on the war, and that, as a minor cause of temporary invalidity, it is worthy of more attention at the hands of military practitioners than its rare occurrence in civil practice would seem to warrant.

THE DIAGNOSIS OF JUVENILE GENERAL PARALYSIS OF THE INSANE.

By W. A. T. Lind, M.B., Ch.B. (Melb.),
Pathologist, Victorian Lunacy Department.

The mental symptoms of the juvenile type of general paralysis of the insane differ somewhat from those of the adult variety, both in quality and quantity, owing to the controlling ideation being that of a child or an adolescent. The neurological signs may also be delayed, so that the clinical picture may present none of the features of the adult type of general paralysis, and the case is diagnosed as insanity with epilepsy, or idiocy.

The following case, occurring in a patient who was received at the Hospital for Insane, Yarra Bend, as a transfer from the Acute Mental Hospital, Royal Park, shows how difficult the diagnosis of this condition can be:—

H.L., received at Royal Park on certificates which state "Speaks incoherently; is of low mental calibre; cannot read or write, and is apparently quite irresponsible." He was 18 years of age on reception on September 5, 1916. The duration of the condition was 12 years. "Up till six years of age he was quite well. He was then bitten by a dog, requiring 23 stitches in the leg. After that he stuttered and commenced to take fits."

Patient is one of a family of ten, all of whom are healthy. His father is healthy, but the mother was a patient in Kew Hospital for Insane, and is now out, discharged from trial leave. While at Kew her blood gave a partial syphilitic reaction. Her condition was diagnosed as dementia, arteriosclerosis, chronic alcoholism.

The diagnosis made in the case of H.L. was insanity with epilepsy. The following notes were recorded of his condition: "Apparently mentally deficient"; "says 12 days in the week"; "has high arched palate."

On September 12, 1916, the patient was excited, emotional, weak-minded and restless, had no idea of time, place or person, and his memory was defective for recent and remote events. His bodily health was good.

Frequently he had attacks of screeching, and there was absence of lucid intervals between the fits. These, together with the other symptoms, led to a diagnosis of juvenile general paralysis of the insane. He had a congestive attack on the morning of the 15th, and died without regaining consciousness on February 16th, 1917.

The post-mortem examination and microscopical examination indicated general paralysis of the insane.

In fairness to those who saw the patient before his transfer to Yarra Bend, I might say that the history was obtained posthumously.

The average number of general paralytics certified annually in Victoria is about 80, and, according to Mott, 2% of these are of the juvenile type. It is therefore obvious that medical men in private practice rarely get an opportunity to study these cases, unless some peculiar circumstance arises by which the child can be treated at home for some considerable period before it is sent to an institution.

In comparing the symptoms of the juvenile with the adult variety of general paralysis, it is mainly in the mental symptoms that the difference is noted. In the juvenile type there is usually no pronounced megalomania, as in the adult variety. *Bien-être* is present, being more marked in the older patients than in the younger ones. Attacks of persistent screaming are frequently met with in the juvenile

type. There are no periods of remission in the juvenile cases.

In differentiating between this condition and epilepsy, it is noticed that in the latter disease there are periods between the seizures, during which the patient's mental condition is normal, or nearly so, whilst in general paralysis of the insane of the juvenile type there are no remissions. The onset of dementia is very rapid in general paralysis, the mental enfeeblement of epilepsy when unassociated with idiocy being very gradual in onset. The muscular clumsiness and the necessity for chair and bed treatment are later in epilepsy than they are in the other condition. Emotional attacks and causeless screaming are frequent in the general paralytic and rare in the epileptics of this age.

The history of the child's mental condition prior to the onset of the symptoms distinguishes it from congenital mental deficiency, as the majority of the general paralytic patients are bright and intelligent up till the onset of the first symptoms. The juvenile paralytics usually show their first symptoms about the age of puberty, and this case recorded commenced at the very early age of six. Another peculiarity which distinguishes this case was the twelve years' duration before it ended fatally. The usual course, pneumonia and other intercurrent diseases permitting, is about five or eight years, usually a little longer than the adult variety.

Sometimes the condition in the adolescent patients resembles *dementia praecox*, but the paralysis of the emotions in the latter helps to distinguish it from juvenile general paralysis.

In the majority of the cases investigated at the Laboratory of the Victorian Lunacy Department, these juvenile paralytics differ from the adult type in having drunkard parents, and to a lesser extent parents who are below the mental standard of their class.

The patients themselves, even if they are as old as 19 years of age, give a strong Wassermann reaction, which distinguishes them from the syphilitic idiots, who gradually lose that reaction, until it disappears at sixteen.

In the sixth volume of the *Archives*, Mott gives the juvenile general paralytics as being 2% of the total number of general paralysis of the insane. Whether it is germ, sperm, or placental infection, it is impossible to say. In one of our cases we know that the mother was the first to get syphilis from a former husband, from whom she obtained a divorce on that account, and the patient was by a second husband; her children by her former husband were quite healthy.

In another of our cases the father was the first to become affected, and the mother apparently became infected by him.

Mott says that intrauterine invasion of the central nervous system by the spirochaete is fatal to the fœtal existence, therefore the attack on the central nervous system must come after birth. In one of our cases we know that the mother was infected by the first husband before she was impregnated by the second husband, therefore the child must have been infected *in utero* before birth, and not at birth, as might be suggested, because by Profeta's law the child would have been immune against infection. The infection must have taken place *in utero*, and the interesting fact is that the patients in these cases of congenital syphilis, which afterwards develope into juvenile general paralysis, may have no stigmata of that disease present when born. The parents or medical attendant may see nothing to suggest that the child is infected by syphilis and is suffering from latent general paralysis. Exactly the same condition of affairs in regard to absence of symptoms is the rule in the adult form, if the patients can be believed, and my own experience is that they are correct in their statements when the majority of them deny that they ever had any external manifestations of late secondary or tertiary lesions. Compared with other forms of syphilis, it is interesting to note that both the adult and the juvenile types of general paralysis of the insane have that peculiar symptom-free period between infection and the onset of mental symptoms. Syphilis is now the generally-accepted cause of general paralysis of the insane; but take away from us the luetic reaction and the discovery of the spirochaete in the cerebral cortex and we have no more proof than we had ten years ago that syphilis is the cause of the disease.

No matter how closely we interrogate both patient and friends we find there are some cases of adult general paralysis in which even the primary infection has passed unobserved, possibly because it was a urethral chancre, yet it shows how slight was the effect on the general comfort and health to pass unnoticed like this. Again, the majority of the patients deny, and are supported by their relatives, that they ever had the usual late secondary or tertiary manifestations. Goodall considers that these clinical facts warrant the theory that the spirochaete in general paralysis of the insane is a special one, with an affinity for the central nervous system; but if that is so, why does it not attack the central nervous system of the juvenile general paralytics when they are *in utero*? According to Mott, this would kill the fœtus. That the form of spiroehaete which is responsible for general paralytic conditions may not be the same as the organism causing ordinary syphilitic manifestations is supported by the fact mentioned by Mott that live spirochaetes from the brain of a general paralytic, when injected into monkeys and rabbits, failed to infect, whereas the material from tertiary lesions caused infection. The manner in which the adult and the juvenile types of general paralysis of the insane both escape visceral manifestations tends to support the belief that there is a special strain of spirochaete for this condition, or else a quiescent stage in the life-history of the ordinary spirochaete. I have noticed that a great number of the general paralytics whom I have seen have obtained their syphilis in South Africa, and I regard that particular brand of spirochaete as being very productive of general paralysis of the insane.

Where the juvenile cases differ from the adult variety in our series of cases, is the frequency with which the former show mental impairment in the parents. This is not noticed in the adult variety,

although it has been frequently observed that there are other cases of general paralysis in the same family. Gregg claims that the reason why so few syphilitics become general paralytics is because there is a certain type of individual susceptible to syphilis of the central nervous system, and that is probably why the members of the same family get general paralysis of the insane after their syphilis. The post-mortem findings in juvenile general paralysis of the insane are practically the same as in the adult variety.

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Reports of Cases.

HUNTINGTON'S CHOREA.[1]

By **S. Evan Jones, M.B. (Syd.),**
Hospital for the Insane, Callan Park, New South Wales.

The patient shown to-night, S.D., was admitted to the Callan Park Hospital for the Insane in December last.

Personal History.—He was born on the Macleay River 48 years ago, did well at school and was considered above the average in intelligence. He passed through the training-school, and was an assistant teacher at various schools for about 20 years. He married at the age of 28 and has five children—three boys and two girls—the eldest eighteen and youngest fifteen years. There have been no deaths and no miscarriages. With regard to his habits, he has been an abstainer from alcohol and tobacco. He gave no history of venereal disease. The Wassermann reaction of his serum was negative.

Family History.—This will be considered later.

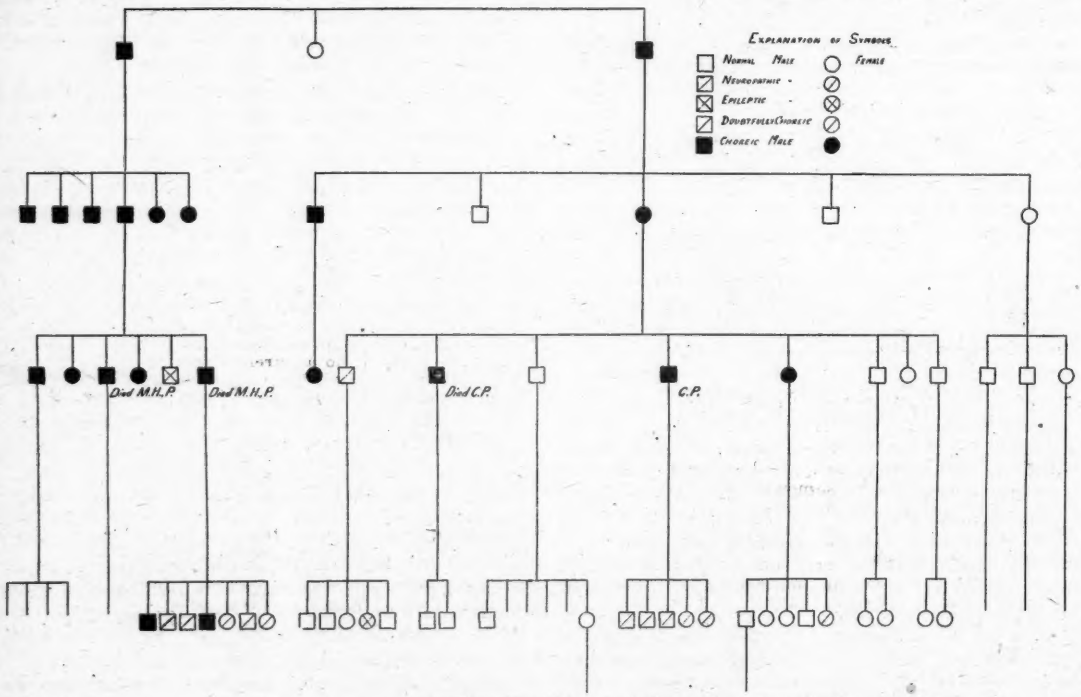
Present Illness.—The present illness commenced at the age of 28, the onset being attributed to overwork in preparing for an examination. The patient says that he had severe pain all over the body, the sensation being like "pins and needles" in the early stages. The choreiform movements have been present ever since, being aggravated by overwork, and finally disqualified him from following his profession some years ago. Lately he is stated to have become careless and untidy and irritable. His wife says he gives way to paroxysms of temper if crossed in his desires.

Mental Condition on Admission.—He exhibited a mild degree of dementia, being simple and childish in manner. His memory was good in regard to general details of his life; but there is a degradation of all the higher mental faculties. He is rather untidy and careless in dress and personal habit.

Since admission he has remained practically the same, has given no trouble, and though he is anxious to be discharged, is easily mollified.

The patient declares that he is unconscious of the morbid movements, but accepts the statements of others that they are present.

Physical Examination.—He stated that he was suffering from nervous breakdown. His heart, lungs and kidneys are healthy. The choreiform movements were very prominent on admission; they were exaggerated by emotion and excitement, but not increased by voluntary effort. Groups of muscles are involved, leading to movement of the limbs and body in a grotesque but semi-purposive fashion. The patient stands, as a rule, with back bowed, bending backwards and forwards in a sudden, jerky manner. The muscles of the trunk, limbs, face and tongue are all involved, and probably the diaphragm also. The patient at times inspires suddenly, with a hissing noise. Muscular power is good. His gait is irregular, owing to the movements. The pupils are equal and regular, and react to light and accommoda-



HUNTINGTON'S CHOREA.

[1] Read at a Meeting of the New South Wales Branch of the British Medical Association on April 13, 1917.

tion and consensually. His knee-jerks are slightly exaggerated; his cutaneous reflexes are active and plantar response flexor.

Family History.—The taint is on the maternal side, the patient's mother and maternal grandfather being choreic also. The manner in which succeeding generations are affected is shown by the chart, which still has many gaps. In the first generation there were two cases, both in males. In the second generation there were eight cases, five in males and three in females. In the third generation there were nine cases, five in males and four in females, and in the fourth generation there were two cases, both in males. This gives a total of 21 cases, 14 in males and 7 in females, out of 74 descendants (37 males and 25 females and 12 individuals of unascertained sex) of two choreics. Including the patient, six males have been admitted to one or other of the mental hospitals. Of these, the present patient is the only one living now. Of the five who have died, one was a brother of this patient and two were descendants of the other branch of the family of the same generation. (These latter cases were reported by Dr. C. A. Hogg in the *Australasian Medical Gazette* on August 20, 1902.) These cases were the same type as the one shown to-night. The remaining two patients died between the ages of 20 and 25. the onset of the disease occurring about the age of puberty. This, of course, is a departure from the general rule in Huntington's chorea, but may indicate a self-limiting tendency. There are two cases in the fourth generation marked as doubtful on the chart—girls aged nine and fifteen. We have received information stating that they are choreic, but have not been able to obtain corroboration. There have been two instances of epilepsy.

Many of the choreics have been insane, and the younger members of the families are stated to be psychopathic; but in these respects our information is incomplete.

A CASE OF NERVE-TUMOUR; REMOVAL AND ATTEMPTED HETEROGENOUS TRANSPLANTATION.[1]

By **Harold F. J. Norrie, M.B., Ch.M. (Syd.),**
North Sydney.

I have pleasure in reporting to you the following case which occurred in my practice recently, in the hope that it may prove of interest to you, and that the discussion, which I desire, will throw some light on subsequent treatment, and point out any possible errors in technique which, owing to the rarity of this type of case, I may have been guilty of.

The history of the case is as follows:—

C.F., aged 65, came to my surgery about two months ago, complaining of a painful swelling about the size of a small acorn on the outer side of his left leg about three inches below the head of the fibula. He further stated that it was accompanied, at times, by a "pins-and-needles" sensation in the foot and pain of varying severity over the dorsum of the foot.

On examination I found a swelling, as mentioned, apparently subcutaneous, or at least quite superficial, painful but tender only on firm pressure, somewhat hard and extremely well-defined. A superficial vein was visible nearby above and below, and I diagnosed the condition as an aneurysmal condition of the vein, more or less filled with blood-clot.

For treatment I advised rest and the application of glycerine-belladonna, which he continued for about a fortnight. At the end of this time, the tumour being still somewhat hard, I continued as before for another week. On re-examination it seemed rather softer, and I allowed him to get up, and I lost sight of him for some days. He came back, however, saying that things were as bad as ever, since the former treatment had been discontinued, and I recommended its repetition.

On March 19, 1917, he came back the third time, and I formed the opinion that the clot was probably pressing on the peroneal nerve. I suggested the removal, between ligatures, of the mass. Accordingly, on March 23, 1917, having got his consent to remove "whatever is there," I made an incision about 1¼ inches long immediately over the tumour, and exposed it. Picture my surprise when, instead of being vein as I had imagined, it was a tumour of the peroneal nerve itself with the vein spread over it. One side of the tumour was hard, but the other, inner, side was much softer, and had on it a small spot which stood out almost black against the dull, greyish-white of the rest of the enlargement.

I removed the mass completely, cutting about ¼ in. above and below the apparent end of the swelling. The wound was then closed by the insertion of two or three catgut sutures and a dry dressing applied.

During the week that followed I sought in vain for someone with an amputated arm or leg to dispose of, and finally decided to try the effect of implanting a nerve from an animal into the gap. With this object in view I obtained a healthy cat, and with the kind assistance of Mr. J. Stuart Sinclair, removed, under anæsthesia and with aseptic precautions, the sciatic nerve and its principal branches. This was placed in warm saline solution, and the cat killed.

The original wound in the patient's leg (which had by this healed *per primam*) was re-opened, and extended in each direction about an inch. The upper end of the divided nerve was isolated without much trouble, but the lower end was more difficult to find. However, after a little dissection I found the lower cut end, but it was very much degenerated, only half of it being at all firm. Dr. Burton Bradley's report, which I will quote later, will perhaps throw some light on this.

However, I sutured the thick end of the cat's nerve to the upper end of the cut peroneal nerve, and one of the branches to the remainder of the lower end, with Pagenstecher, and the remaining branches were implanted, without suture, into the muscle. The latter procedure was adopted in the hope that, failing union of the divided nerve, I might yet avoid the unpleasant symptoms consequent on the formation of a bulbous end. The wound was closed in layers with catgut for the deep, and horsehair for the skin, sutures.

The after treatment has been without incident. There was some local and referred pain immediately following the operation, which responded to acetyl-salicylic acid and potassium bromide, and a little "pins-and-needles" sensation in the foot. Neither of these symptoms persisted after the first day or two, and the wound healed by first intention, with the exception of about half an inch, which granulated.

The only symptom present a fortnight after was a burning sensation in the dorsum of the foot on contact with the bed-clothes.

In view of the fact that the nerve in question is chiefly sensory and its skin area more or less overlapped by other sensory nerves, it is difficult to estimate accurately the exact loss of sensation caused by the division of the nerve. There is, however, no apparent interference with the action of the muscles supplied by the muscular branches, and at present, three weeks after the division of the nerve, the patient's condition is to my, perhaps prejudiced, way of thinking satisfactory.

The skin wound has almost completely healed; the patient is able to move about with no perceptible loss of muscular power; the peronei muscles are rather smaller on the affected side, though not flabby as one would expect paralysed muscles to be, the skin, which was at first dry and scaly, is gradually resuming its normal state; already the area on the outer side of the foot corresponding to half of the 3rd, 4th, and little toes, is natural-looking, and the anæsthesia has disappeared from that portion, and the burning sensation from all but a portion of the remainder.

I commenced massage on Tuesday last, but I doubt whether it is influencing the condition much as yet.

The patient looks well, eats well and complains only of the enforced rest and the neglected condition of his garden, which he maintains I am directly responsible for.

Dr. Burton Bradley's report is as follows:—

> The specimen has a structure composed of spindle-cells. In certain places these cells are closely crowded, shorter and active looking, but there is no definite evidance of malignancy.
>
> The nerve is not invaded but pushed aside by the growth, which appears to be encapsulated.
>
> The condition is one of a soft fibroma.

[1] Read at a Meeting of the British Medical Association on April 13, 1917.

Like pathologist's reports in general, with apologies to the pathologists present, it is delightfully non-committal clinically, but Dr. Bradley told me on the telephone that the mass was apparently pressing on and deviating the inner fibres of the nerve, and to some extent crowding them together at the expense of the nerve-sheaths.

This, perhaps, in part at least, accounts for the more rapid degeneration of some fibres than others.

A curious phenomenon, though quite beside the point, but of possible interest to some, was associated with the first operation. The patient, after he recovered from the anæsthetic, described the whole procedure and the tumour (which he never at any time saw) in the most accurate detail.

In conclusion, I would like to record my appreciation of the assistance I received in the case from Dr. Creswell Howle for the anæsthesia, from Dr. Burton Bradley for his pathological examination, and from Mr. Sinclair, veterinary surgeon, for the dissection of the cat.

Reviews.

SURGICAL OPERATIONS.

A little book by Dr. Chatterji[1], of 238 pages, is designed for the use of students through a course of operative surgery. Like all such books, it is primarily a handbook for operations on the cadaver. A course of these operations always comprises many whose value is chiefly found in the opportunity they give for learning the use of instruments and the general principles of operative practice, since an exhaustive use has to be made of each body employed.

As a manual dealing with this subject, we consider Dr. Chatterji's book to be excellent. It is clear, concise, well arranged and judicious. The instructions given are evidently those of an experienced surgeon, and where we may differ from him, it is only on minor points and where differences of opinion are inevitable and allowable.

The book contains a number of coloured plates. The reader of European descent will be struck with one difference from plates he has seen before. This is the brown skin colour of the Indian native "subject." The volume is of convenient size and weight for portability.

Public Health.

THE HEALTH OF NEW SOUTH WALES.

The following notifications have been received by the Department of Public Health, New South Wales, during the week ending April 21, 1917:—

	Metropolitan Combined District. Cs.	Dths.	Hunter River Combined District. Cs.	Dths.	Rest of State. Cs.	Dths.	Total. Cs.	Dths.
Enteric Fever	16	0	0	0	16	2	32	2
Scarlatina	29	0	4	0	31	0	64	0
Diphtheria	88	1	14	1	101	2	193	4
C'bro-Sp'l Menin.	1	0	2	0	5	2	8	2
Poliomyelitis	0	0	0	0	1	0	1	0
*Pul. Tuberculosis	16	15	1	0	1	0	18	15

* Notifiable only in the Metropolitan and Hunter River Districts, and, since October 2, 1916, in the Blue Mountain Shire and Katoomba Municipality.

THE HEALTH OF VICTORIA.

The following notifications have been received by the Department of Public Health, Victoria, during the week ending April 22, 1917:—

	Metropolitan. Cs.	Dths.	Rest of State. Cs.	Dths.	Total. Cs.	Dths.
Diphtheria	50	2	45	0	95	2
Scarlatina	26	2	30	0	56	2
Enteric Fever	3	0	3	2	6	2
Pulmonary Tuberculosis	9	5	15	7	24	12
C'bro-Spinal Meningitis	5	—	4	—	9	—
Poliomyelitis	0	—	2	—	2	—

THE HEALTH OF QUEENSLAND.

The following notifications have been received by the Department of Public Health, Queensland, during the week ending April 21, 1917:—

Disease.	No. of Cases.
*Diphtheria	40
Pulmonary Tuberculosis	16
Poliomyelitis	4
Scarlatina	23
Enteric Fever	16
Erysipelas	1
Puerperal Fever	4
Cerebro-Spinal Meningitis	5

* One case returned as membranous croup.

THE HEALTH OF SOUTH AUSTRALIA.

The following notifications have been received by the Central Board of Health, Adelaide, for the week ending April 14, 1917:—

	Adelaide. Cs.	Dths.	Rest of State. Cs.	Dths.	Totals. Cs.	Dths.
Diphtheria	2	2	34	0	36	2
Pertussis	0	0	10	0	10	0
Pulmonary Tuberculosis	0	5	10	5	10	10
Enteric Fever	0	3	5	0	5	3
Scarlatina	0	0	4	0	4	0
Erysipelas	0	0	3	0	3	0
C'bro-Spinal Meningitis	0	1	2	0	2	1
Puerperal Fever	0	0	1	1	1	1
Morbilli	0	0	1	0	1	0

INFECTIVE DISEASES IN WESTERN AUSTRALIA.

The following notifications have been received by the Department of Public Health, Western Australia, during the three weeks ending April 14, 1917:—

	Metropolitan. Cases.	Rest of State. Cases.	Totals. Cases.
Enteric Fever	10	6	16
Diphtheria	36	17	53
Scarlatina	17	1	18
Pulmonary Tuberculosis	17	7	24
Erysipelas	7	1	8
Cerebro-spinal Meningitis	2	0	2
Beri Beri	0	2	2
Septicæmia	1	0	1
Anthrax	1	0	1

THE HEALTH OF TASMANIA.

The following notifications have been received by the Department of Public Health, Tasmania, during the week ending April 21, 1917:—

Disease.	Hobart. Cases.	Launceston. Cases.	Country. Cases.	Whole State. Cases.
Diphtheria	8	3	20	31
Enteric Fever	2	0	3	5
Pulmonary Tuberculosis	1	0	2	3
Scarlatina	0	0	2	2

Our attention has been drawn to a mistake in the spelling of a name of an officer of the Royal Army Medical Corps Reserve. The name Michael Stanislaus Vasech, as printed on page 318 of *The Medical Journal of Australia* of April 14, 1917, and as it appears in the *Commonwealth of Australia Gazette* of March 29, 1917, should be Michael Stanislaus Veech.

[1] A Handbook of Surgical Operations, by K. K. Chatterji, F.R.C.S.I., with a Foreword by Lieutenant-Colonel R. Bird: 1916. Calcutta: Butterworth and Company (India), Limited. Sydney: Butterworth and Company (Australasia), Limited. Crown 8vo., pp. 238. Price, 7s. 6d.

The Medical Journal of Australia.

SATURDAY, MAY 5, 1917.

Nationalizaton of the Medical Profession.

The Federal Committee of the British Medical Association in Australia, at its meeting held in Sydney on April 25 and 26, 1917, considered the principles underlying the question of nationalization of the medical profession, and adopted certain tenets of faith on which a definite, positive policy could be built up, should circumstances render it necessary. A report of the proceedings of the meeting will be published in next week's issue. From the discussion on the proposals before the Committee, it has become more than ever obvious that a clear conception of what is included in the term nationalization of the medical profession is not universally possessed. Confusion has arisen between nationalization of the medical profession, nationalization of the public medical services and State control of schemes for the provision of treatment for the community. There have been many suggestions made both by responsible authorities and by private bodies or individuals for the introduction of the first and the third; some have embraced the whole community, and the whole of the medical profession, while others have been partial. In regard to the nationalization of the public medical services, the position is quite clear, since this has been an accomplished fact for many years, and the only problem before the community at present is how far the services should be extended.

In order that these subjects may receive practical treatment by the medical profession at a date sufficiently early to be of value, it is advisable to consider the essentials of both nationalization of the medical profession and State control of arrangements for the provision of treatment to the community. By nationalization we understand the employment of individuals by the State to carry out specific duties to the community. In the case of the medical profession, it would involve the employment of medical practitioners at a fixed salary to undertake the medical attendance on a limited or unlimited number of individuals of the general community. The State might offer to the whole community free medical attendance by its salaried medical officers, and under this arrangement the money necessary to maintain the service could be obtained either out of consolidated revenue or by direct local taxation. It might be that the well-to-do would be included in the arrangement, although they would be at liberty to employ private medical attendants at their own expense, or they might be excluded altogether from the scheme. In any of the circumstances included under the term nationalization of the medical profession the medical practitioner would be the servant of the Government or Governmental department, and would be responsible to his employers, and not to the patient. Free choice of doctor, limited to the practitioners employed by the State, could be embodied in such a scheme, and it would be feasible to limit the number of patients any one practitioner would be allowed to attend.

By the State control of arrangements for the provision of treatment to the community is to be understood medical benefit of national insurance schemes and the State control of Friendly Society Lodge practice. In these and similar arrangements the medical practitioner agrees to provide medical attendance to certain persons who contribute a definite sum weekly, or at other stated periods, to a common fund for the purpose of insuring themselves against financial loss in the case of illness. Under national insurance schemes the State adds its subsidy or contribution to the common fund. The medical practitioner is not the servant of the State, and cannot be required to do any service by the State as employer, as would be the case under a nationalization scheme. The relations between doctor and patient are not influenced by the intervention of the third organizing party, save in so far as the third party may be called upon to act as adjudicator in the event of a dispute. The practitioner is under an obligation to the person whose name is on his lists to render medical attendance for a limited period, and for this period he claims a regular remuneration out of the common fund.

It has been suggested that a scheme might be introduced whereby all the provisions of the medical benefit of a national insurance scheme would be involved, save that the insured would not be required to make any contribution. It is impossible to classify such a proposal under either heading, until it can be determined whether the medical practitioner would be employed by the State to carry out certain duties, or whether he would undertake the attendance of the persons wishing to place their names on his list, without having to obey the behests of the State as employer. For the present we need not discuss the advisability or otherwise of the introduction of any of these schemes in the public interest. It must, however, be recognized that national insurance is a feasible proposition without medical benefit and that the objects for which it has been introduced in Great Britain and elsewhere might be gained in this way. It will, however, be quite clear that practice under any scheme of nationalization would or might be prejudicially influenced by the control of the State as employer intervening between the doctor and patient. In so personal a matter as medical attendance it is inconceivable that this interference by regulations or inspectorial bodies would not be resented both by the patient and by the doctor.

In the case of the public medical services the medical practitioner has to perform certain duties to the community as a whole, and therefore the State, as representative of the community, must act as employer. In one class of these arrangements there are no relations between doctor and patient to disturb. This is best exemplified in the Public Health Service. Everyone who realizes the value of preventive medicine must recognize that this form of service must become more and more extensive as knowledge increases. In the case of the State acting as guardian or parent, either when the individuals have no means to pay for medical attendance, as in the poor law, or where for disciplinary or other reasons the obligation of looking after the health of a certain section is accepted by the State, the State-employed medical practitioner has to act under definite orders or regulations, and the relations usually existing between the doctor and patient may be disturbed. It must be remembered that national insurance has been introduced as a remedy for pauperism, and therefore in the course of time this expedient would render the provision of medical attendance under the poor law unnecessary. It will further be conceded that from the point of view of the patient the arrangements, such as those which obtain in the military service, are not conducive to complete confidence in the military surgeon as a medical adviser, at all events in time of peace. The experience of both patients and doctors of State-controlled services which provide medical treatment for a section of the community, while necessary under certain circumstances, is a poor substitute for the usual arrangement for medical attendance.

BRITISH RED CROSS MONTH.

Everybody knows the British Red Cross Society. And everybody who knows the Society takes a deep interest in its activity, and wishes it continued success. Good wishes, however, do not contribute to earnest work. The colossal task which the British Red Cross Society has achieved has not been accomplished without the expenditure of very large sums of money. We wish to recall to the memory of our readers that the British Red Cross Society has provided British, Colonial and Allied soldiers with a stupendous amount of material and with care both in health and in incapacity. Its organization has staffed and equipped field ambulances, hospitals, hospital ships, ambulances, rest homes and other institutions. Through its generosity the military institutions have received a great store of utensils and apparatus. In short, the work of the British Red Cross Society has become invaluable to our army, and we can rely on its continued succour, no matter how long the war may last.

Up to the end of the year 1916 the sum of six million pounds sterling has been raised on behalf of the British Red Cross Society and the Order of St. John. Of this sum, four and a half millions had been spent. Since the beginning of this year the expenditure has been at the rate of approximately £40,000 each week. With characteristic energy and benevolence, Her Excellency Lady Stanley, the President of the Victorian Division of the British Red Cross Society, responded to an appeal from the Marquis of Lansdowne, the President of the parent Society, and undertook early in February to approach the various Branches throughout the State to assist in making a special effort during the month of May to raise a substantial sum in aid of this wonderful work of love. As we pointed out above, everybody knows the Red Cross Society, and we would add that no one knows it better than the members of the medical profession. We are therefore addressing our colleagues in confident anticipation of a generous response. We ask for subscriptions to be sent to the Honorary Treasurer of the British Red Cross

Month, Mr. O. Maurice Williams, 403 Collins Street, Melbourne. It is our intention to publish week by week the list of subscriptions from medical practitioners to this special fund, and we trust that the lists will be long and that the contribution from the medical profession will be worthy both of the donors and of the noble recipients.

THE COMPOSITION OF EXPIRED AIR.

Since the days of Cavendish and Gay-Lussac it has been possible to ascertain the composition of the breath of man. Seventy years ago the analyses made of the air expelled from the lungs, were carried out with almost as great accuracy as can be obtained at the present day. Although the methods for determining the chemical composition of the expired air have been simplified to such an extent that accurate analyses may be made with a little practice by any skilled artisan, information about the expired air has accumulated slowly. The earlier observers were satisfied with two or three analyses of the successive portions of the air leaving the respiratory passages. Usually one sample was taken from the first part and one from the last part of the expired air. Even when a greater number of samples were collected the number of respirations examined was small. About twelve years ago Haldane discovered that the concentration of carbon dioxide in the last portion of the air to leave the lungs was the same whatever might be the quantity of air expelled through the mouth. From this he inferred that the last fraction of the expired air was derived from the alveoli of the lungs and that the amount of carbon dioxide in this portion of the expired air was constant. He made, however, no attempt to find out the quantity of this alveolar air in the breath.

The earlier physiologists who had made analyses of the breath had not noticed any fraction with a constant composition in the expired air and had assumed from their scanty figures that the percentage of carbon dioxide steadily rose in each successive portion leaving the nostrils. They had also paid little attention to the conditions under which their samples were collected. The fact noticed by Haldane is not of general application. It is only true when the samples are taken from the shallow and deep breaths after a series of inspirations of the same depth. If the subject moves about and works so that the ventilation of the lungs is altered, the percentage of carbon dioxide in the alveolar air changes. Under these conditions the figures obtained for the percentage of carbon dioxide after expirations of different depths will show a considerable variation. It is also necessary that the expirations from which the two samples are taken, shall be made at the same instant after the end of inspiration. If any pause is made before expelling the air from the lungs, the alveolar air alters in composition. These factors are of such importance that it becomes a matter of considerable difficulty to adjust the conditions to simplicity. If a series of analyses of the expired alveolar air is made on a number of subjects chosen at random, the variability and not the constancy of the percentage of carbon dioxide will be observed.

The recognition of these difficulties in teaching students in the Physiological laboratory of the University of Sydney has lead to an investigation by Miss E. C. Pinkerton on the composition of the last part of the expired air. This air has been collected in a long brass tube fitted with capillary side tubes through which samples could be withdrawn for the estimation of carbon dioxide. In this way it has been possible to make a number of analyses on the last 625 c.cm. of the expired air. When the air leaves the lungs in less than two seconds, the percentage of carbon dioxide in the last 625 c.cm. is constant in each respiration, whether the amount of air expired be 1100 c.cm. or 2500 c.cm. If, however, a longer time is taken to drive the air from the lungs, the percentage of carbon dioxide is greater in the air the last to leave the respiratory passages. These results are a convincing testimony of the accuracy of the deduction made by Haldane. They also suggest the need for more detailed analyses of the successive portions of the expired air.

FOR WOMEN AND CHILDREN DEPENDENT ON AUSTRALIAN SOLDIERS AND SAILORS ON ACTIVE SERVICE.

We have received a request to plead for the Fruit and Vegetable Fund for Fighters' Families, and, in acceding to this request, we feel that no more eloquent argument can be used than a brief recital of the facts. The Fund has undertaken to provide fruit, vegetables, eggs, jams and other comforts to the wives and children of those who are fighting for Australia and the British Empire. There are eleven hundred wives and four thousand children who depend on their supplies of vegetables and fruit on this excellent organization. Want of means must result in some of the women and children having to go to bed hungry and cold. These wives have participated in the sacrifice made by their husbands, and their little ones are required to share some of the hardships and sorrows born of their parents' loyalty. Small donations from many go to make up large stocks, from which the Fund can do much. Those who have plenty are asked to send gifts in kind or money to the Honorary Organizer, Fruit and Vegetable Fund, 16 Carrington Street, Sydney, New South Wales.

We have been informed that Dr. Edward J. Stuckey, of the Union Medical College, Pekin, has enlisted in the Royal Army Medical Corps for service as Medical Officer with one of the Labour Battalions, which are being recruited in North China for service behind the British lines in France. Dr. Stuckey has been granted leave of absence to enable him to take up this work.

Dr. J. H. Waite, of the Rockefeller Foundation International Health Board, has arrived in Sydney in response to the invitation of the Federal Government addressed to the Rockefeller Foundation to co-operation in a hookworm survey in Papua and Queensland. As has already been announced in this Journal, the Rockefeller Foundation has offered to the colonies and dependencies of Great Britain scientific and financial facilities for the purpose of ascertaining the incidence of ankylostomiasis, and inaugurating a campaign for its eradication.

Abstracts from Current Medical Literature.

MEDICINE.

(131) Endamœba and Pyorrhœa.

Charles F. Craig, describing the parasitic amœbæ of man, concludes with an account of *Endamœba gingivalis* (*Journ. Med. Research*, January, 1917). He states that this species occurs frequently in both the healthy and diseased human mouth, especially around the teeth. It was first described by Gros in 1849, who named it *Amœba gingivalis*. In 1904 v. Prowazek gave a detailed description of the species under the name *Endamœba buccalis*, but as the parasite is identical with *E. gingivalis* the designation *buccalis* should be dropped as a specific name. *E. gingivalis* is a valid species distinct from *E. histolytica*, although some authorities have endeavoured to prove their identity. However, these two species differ in morphology. *E. gingivalis* cysts never contain more than one nucleus, in contradistinction to the four-nucleated cysts of *E. histolytica*. Further, attempts to produce dysentery in susceptible animals by feeding experiments with *E. gingivalis* have universally failed. As regards the relationship of *E. gingivalis* to *pyorrhœa alveolaris*, most authorities consider that there is no causal connexion. While the parasite is generally present around the teeth and in the abscesses of the disease, it also occurs in a larger proportion of perfectly healthy mouths, and there has never been any proof of an experimental nature connecting *E. gingivalis* with pyorrhœa. It is impossible to deny absolutely that it may produce the disease, but there is no experimental proof that it does. Recent work both by medical and dental bacteriologists leads the author to conclude that this species of endamœba is not the ætiological factor in *pyorrhœa alveolaris*.

(132) Acquired Syphilis of the Lungs.

F Parkes Weber (*Proc. Royal Soc. of Medicine*, December, 1916), after describing six cases of syphilis of the lungs in detail, remarks that the chief pathological-anatomical features of pulmonary syphilis are:—(1) Gummatous formation with tendency to necrotic changes; and (2) more chronic, often widely spread fibrotic changes, tending to become associated with bronchiectatic dilatations. According to T. Tanaka, the histology of the pulmonary indurative changes of acquired syphilis is very similar to that of the so-called "white pneumonia" of congenital syphilis. The characteristic features are *endarteritis obliterans*, with periarteritis and endophlebitis. Mesarteritis also occurs. In regard to the clinical diagnosis, aortic aneurysm or mediastinal new growth may have to be considered, especially if there is paralysis of the left recurrent laryngeal nerve. The chief difficulty, however, is the differentiation from pulmonary tuberculosis. There may be pyrexia—a so-called tertiary syphilitic fever, or a complicating fever due to associated bronchitis or bronchiectasis with purulent discharge. Further, there may also be night sweats, emaciation, hæmoptysis and copious nummular muco-purulent sputum. In pulmonary syphilis, however, the lower parts of the lungs are generally involved, and, of course, tubercle bacilli are absent. Pleurisy and pleural effusion may be associated with pulmonary syphilis. The possibility if syphilitic ulcers or stenoses in the bronchi, and trachea or larynx must be born in mind. Stengel (1903) pointed out that one of the most suspicious symptoms is intense dyspnœa of spasmodic type, with a tendency to stridor and cyanosis; all of these being indicative of obstruction in the larger air passages. The therapeutic test is of great importance, especially when the patient derives obvious benefit from potassium iodide, a drug which sometimes aggravates the symptoms in pulmonary tuberculosis. Of course old cicatricial stenoses of the respiratory passages cannot be removed by antisyphilitic treatment. It must always be remembered that pulmonary tuberculosis and pulmonary syphilis may co-exist. The author does not consider that the two diseases have much effect (either good or bad) on each other, unless one or both of them have been sufficiently severe to produce a condition of cachexia, and generally to lower the resistance of the body towards disease. Though it has been assumed that an antagonism between the two diseases exists, it is more probable that syphilis predisposes to tuberculosis in so far that it lowers the vitality of the organism; and it is not unlikely that syphilitic tissues constitute a favourable soil for the growth of tubercle bacilli. When the tuberculosis is active and the syphilis quiescent, the former naturally dominates the clinical aspect and prognosis, and the effect of energetic mercury and iodide treatment is not unlikely to be a bad one. Salvarsan, in moderate doses, seems to do no harm in ordinary cases of pulmonary tuberculosis. The author says that it does no good as far as he is aware, although this is contrary to the opinions expressed by some other writers.

(133) Epidemic Respiratory Infections.

George Mathers (*Journ. Amer. Med. Assoc.*, March 3, 1917) writes that epidemics of acute respiratory infections have occurred at irregular intervals for centuries in various parts of the world. It is very striking that, notwithstanding the wide diversity of conditions under which these epidemics have occurred, the clinical manifestations of the disease have always been the same. Usually the symptoms are those of an acute infection of the upper respiratory tract, but occasionally of the intestinal tract, with a rapid course, and characterized by marked prostration of the patient. The complications include, infections of the accessory nasal sinuses, lobar and lobular pneumonia, pleurisy, lymphadenitis, otitis media, arthritis, pericarditis, peritonitis, cholecystitis and acute nephritis. The most important bacteriological work was carried out during the great pandemic of 1889-92. Many organisms were discovered in cases of influenza, including streptococci, staphylococci and pneumococci. In 1892 Pfeiffer described his bacillus as the causative factor. However, he was unable to find these organisms in the blood stream, or satisfactorily to reproduce the disease in animals. Davis and others have repeatedly found Pfeiffer's bacillus in whooping cough, tuberculosis and chronic bronchitis, as well as in many other diseases, and, except in influenzal meningitis, consider this bacillus to be of no primary importance. Further, this organism has not been found regularly associated with the epidemics since 1890. During the winter of 1915-16 the United States was visited by a severe epidemic of acute respiratory infections, resembling in every detail the great epidemic of 1890. Sixty-one cases were studied bacteriologically. In all the nasal discharge and sputum were examined, and in a few instances blood cultures were made. In 46 instances hæmolytic streptococci were found. Green-producing streptococci were found in 30 instances, and pneumococci in 30 cases, staphylococci in 50 cases, *Micrococcus catarrhalis* in 6, and Friedländer's bacillus in 1 case, *bacillus rhinitis* in 2 cases. In only one instance was the influenza bacillus found, and in no instance in which post mortem material was examined. The most significant findings in this work were the hæmolytic streptococcus, which, when present, was usually in predominating numbers, and the almost complete absence of *bacillus influenza*, although the disease simulated in every detail the so-called true influenza. The question of filterable viruses cannot be excluded in such diseases, but in three early cases in which virus cultures were made, no results were obtained. The results seem to indicate that the virulent hæmolytic streptococcus must be considered as a very important factor in the ætiology of these influenzal diseases. Whether or not the infection is primarily a streptococcus infection cannot be determined; but as the disease progresses, this organism rapidly becomes of paramount importance. Simultaneously with this human epidemic an epidemic of acute respiratory disease occurred in houses in the United States in the winter of 1915-16, the symptoms being similar in every way to those of human influenzal infections. In the equine epidemic, the evidence strongly suggested that the causative factor was a hæmolytic streptococcus. This organism, although similar in many characteristics to the streptococcus from human sources, dif-

fered from the latter in its biological reactions, a fact which renders improbable a common ætiology for the two infections.

NEUROLOGY.

(134) Over-Activity of the Vagus System and Anaphylaxis.

Smith (*Journ. Nerv. and Ment. Diseases*, New York, January, 1917) discussed vagotonia, a condition originally described by Eppinger and Hess as the symptom-complex resulting from over-activity of the vagus system or parts thereof, in which, as might be expected from the anatomical distribution of the vagus nerve, indefinite nervousness, hyperhidrosis, embarrassment of respiration, asthma, pylorospasm, constipation, or alternating constipation and diarrhœa were likely manifestations. Between over-activity of the vagus system and anaphylaxis Smith saw a parallel, because anaphylaxis was manifested through the mechanism of vagus stimulation. If pilocarpine were given to an individual having an over-active vagus a more decided pharmacological effect was seen than when the same drug was given to a normal individual, pilocarpine being a vagus irritant. Also if diphtheria antitoxin were given to a vagotonic subject, for instance, an asthmatic, the vagus system might be irritated to the point of death. Since signs of vagus irritability arose in the presence of intestinal parasites (eosinophilia), or of food idiosyncrasies (urticaria and œdema), or of pollen (hay fever and asthma), it was suggested that such irritability was an expression of an anaphylactic state becoming acute under the influence of a specific toxin. Mechanical and reflex influences might also cause vagal stimulation, shown by disordered action of the heart, and by a type of dyspnœa different from that of the asthmatic. Likewise, the influence of the emotions was to be remembered, as in the case of the old lady, who, convinced of the association between roses and her attacks of asthma, promptly suffered an attack on seeing an artificial rose. Atropine, the physiological antagonist of pilocarpine, in controlling excessive perspiration, in diminishing salivation and in relieving asthma, functional bradycardia and gastro-intestinal spasm, was antidotal to vagal irritability.

(135) Division of Antero-Lateral Tract of the Cord in Tabes.

Souttar (*Royal Soc. of Med.*, November, 1915) reported the case of a married woman who first came under observation suffering from attacks of abdominal pain and vomiting, which suggested early tabes. Four years later her condition was confirmatory of this diagnosis. The pupils were small and irregular, and did not react to light. The muscles were atonic, though there was no alteration in gait. The knee-jerks were obtained with difficulty, and there were extensive areas of pronounced hyperæsthesia, chiefly on the left side. Five months' treatment with daily inunctions of mercury and large doses of potassium iodide brought no improvement. The pain was then restricted to the left side of the abdomen, and was so intense that, together with continuous and uncontrollable vomiting, the patient's condition became desperate. Therefore, to eliminate the painful element in her attacks, or reduce their general severity, it was decided to divide the right antero-lateral tract of the cord, that is, the spinal pathway for conduction of pain. The operation was followed by considerable improvement. A month later she returned to hospital, saying that, though she had had one severe attack of vomiting, she was free from pain, and she presented a striking contrast to her previous condition. It is believed that this is the first occasion on which a tract of the spinal cord has been divided for the relief of pain in tabetic crises. The operation has been thrice performed to relieve pain in other conditions, by Spiller and Martin, in America, in a case of inoperable tumour involving the *cauda equina*; by Beer, also in America, for recurrence of carcinoma of cervix involving sacral roots, and by Förster, in Germany, for pain following division of posterior roots.

(136) Spasm in Cerebello-Pontine Tumours.

Harvey Cushing (*Journ. Nerv. and Ment. Dis.*, October, 1916) reported two cases of facial spasm of unusual persistence and severity, due to irritation of the facial nerve by the pressure of a homolateral tumour of the cerebello-pontine recess. In a series of 50 examples of lateral recess tumour observed by the writer, most of them fibro-endotheliomas (the so-called acoustic neuromas), this particular irritative symptom, in corresponding degree, had not arisen. In such tumours the eighth nerve appeared to be particularly vulnerable, and unilateral deafness was one of the earliest and most persistent symptoms. The fifth and seventh nerves, on the other hand, were capable of an astonishing degree of stretching by the enlarging growth, they might even be drawn out to many times their normal length, and yet not have their function seriously impaired. Indeed, if lowered trigeminal sensitivity were present, it might only be revealed by an inactive corneal reflex, while facial weakness might only be apparent as a slight loss of emotional symmetry. An irritative symptom, such as occurred in these cases, consisting of a homolateral spasm, arising every five or ten minutes, beginning with twitching of the orbicular muscles, spreading over the face and involving the platysma, uncontrollable, painless and precipitated by emotion, was undoubtedly rare. Such a facial spasm (*tic convulsif*), the most common of all forms of local spasm, was usually attributed to some reflex irritation arising in the trigeminal distribution, but contrary to this, Cushing had seen the condition supervene after the trigeminal nerve had been divided for neuralgia. Hence he thought there were other causal agencies, and that pressure of a tumour on the seventh nerve, as instanced by the present cases, was one. By the usual crossbow incision for subtentorial extirpations the growths were exposed and successfully removed, and thereafter the spasms ceased.

(137) Anosmia and Sellar Distension.

Harvey Cushing (*Journ. Nerv. and Ment. Dis.*, November, 1916) pointed out that the process of making a regional diagnosis of a case of brain tumour consisted in assembling those positive signs and symptoms which might be of localizing value, and discarding those which might be irrelevant or misleading—the so-called secondary, distant or false localizing signs. These misleading signs most often occurred as palsies of the cranial nerves, from compression or distortion by the altered brain. A good example was the diplopia so common in cases of cerebellar tumour, and due to strangulation of the sixth nerves by the overlying posterior cerebellar arteries, which cut into them like rubber bands. In a similar way the internal carotid artery might indent the side of the optic chiasma, or its middle cerebral branches press upon the oculo-motor or third nerves, producing signs difficult to interpret and confusing to the regional diagnosis. In this communication attention was drawn to anosmia as a misleading sign. A case was related in which the dominant signs were anosmia and distension of the *sella turcica* (visible on X-ray examination). These, of course, were common accompaniments of pituitary tumour; but in the absence of other signs the case was regarded with suspicion, and a right-sided temporal decompression, as a temporizing measure for a tumour of obscure origin, was performed and life prolonged for three months. The autopsy revealed a large (160 gramme) endothelioma imbedded in the lateral face of the left cerebral hemisphere. Incidentally, the extent to which a slowly-growing fibro-endothelioma might deform and indent the brain without producing serious loss of function was commented upon. Thus, although this tumour overlay part of the motor area, it did not even set up the usual irritative symptoms of a Jacksonian type, let alone paralysis. The chief lesson to be learned from the paper was that anosmia might apparently be produced by mechanical injury, resulting in acute angulation of the olfactory tracts, brought about by a herniation of the superjacent structures into a greatly distended interclinoidal space, caused by pressure absorption of the pituitary fossa.

British Medical Association News.

SCIENTIFIC.

A meeting of the New South Wales Branch was held at the B.M.A. Building, 30-34 Elizabeth Street, Sydney, on April 13, 1917, Dr. R. Gordon Craig, the President, in the chair.

The Honourable J. B. Nash exhibited a number of urinary calculi which he had obtained from patients of his own during the last few years. He had always taken an interest in urinary calculi. He referred to an investigation which had been carried out many years ago for the purpose of determining the distribution of lithiasis in Australia. At that time the stones met with in surgical practice were largely from the bladder. It had been discovered that urinary calculi were very common indeed in Castlemaine and in Bendigo, Victoria, and a large number had also been met with in the neighbourhood of Newcastle.

Dr. Nash proceeded to demonstrate the various specimens which he had lying on the table. He remarked that he had come across calculi from every part of the urinary tract save the renal cortex. Mayo and other surgeons had described stones in the renal cortex; but as he had never seen one, he assumed that they must be very rare indeed. The majority of calculi had their beginning by the deposition of the constituents of the urine on a foreign body or nucleus, and were built up in layers. He showed one specimen which was little more than a nucleus of a calculus. It had been formed in the kidney of a child and had passed down into the bladder. He showed another specimen to illustrate the deposition of urinary constituents in a post-prostatic pouch. One stone which had been found in the bladder had been formed around a chromic catgut ligature which he had applied to the pedicle of a vesical tumour. He demonstrated another stone, which was formed of crystalline deposits around an aggregation of nuclei held together by the sticky fibrinoplastin of the blood. In turning his attention to a number of large bladder stones composed of phosphates, urates and oxalates, he referred to Sir Henry Thompson's statement, made over 30 years ago, after the introduction of lithotrity, that no large stones would be found in the future. His specimens demonstrated that this prophecy had not been fulfilled. In regard to the hard oxalate stones, he pointed out that no nuclei were present.

Showing a calculus from the urinary tubules of the kidney, he explained its formation by stating that the fluid dropping continuously on the early deposit had built up the calculus like a stalagmite. He mentioned that he had removed 63 stones from one kidney, and that the absence of subsequent symptoms led him to conclude that he had removed all that were there. He also showed a very large calculus from the pelvis of a kidney. Many of the stones formed in the kidney were deeply blood-stained. On another calculus removed from the renal pelvis—an oxalate stone—a map of the mucous membrane of the pelvis was plainly discernible. The surface was polished like marble, and the stone was of great hardness. The eburnation had been formed by the urine driving the large stone against a smaller one, producing a facet at the point of friction. He showed a stone from the ureter, the outer layers of which were like eggshell, and represented an incomplete incrustation on top of a blood-stained layer of fibroplastin. In the last place he showed an irregular bladder-stone, which had been found hanging from the scar of an old suprapubic incision. The stone had assumed a curious shape as a result of its dipping into the urine as the bladder filled up.

Dr. Sydney Jamieson did not agree with Dr. Nash that stones in the cortex of the kidney were so very rare. There were many specimens in the museum at the University. These stones were usually uric acid calculi with incrustation of phosphates. He thought that the suggestion of a stalagmite formation of calculi in the renal tubules could be put out of court at once, since the tubules were only potential cavities. The calculi were casts of the calices and of the urinary tubules.

Dr. R. Gordon Craig tendered his congratulations to Dr. Nash for having preserved a collection of stones, such as was rarely seen outside a pathological museum. He pointed out that it was usually held that uric acid calculi were common. Some ten years ago a work was published from the Chemical Laboratory of the Manchester University showing that only 2% of all calculi were wholly uric acid. In the majority of these stones there was an oxalate element, and this element was said to be sufficient to throw a shadow in a radiograph. Referring to the calculus found in connexion with the suprapubic incision, Dr. Craig thought that it must have been caused like another one described by Dr. Nash around a ligature. He had been much struck by the experience that chromic gut did not become absorbed. He referred to a patient whose abdomen had been re-opened in 1916, ten years after the first operation. Several knots of chromic gut had been found. He also referred to the frequency with which large stones remained quiescent in the bladder. He cited instances to illustrate that an individual could have a bladder stone or a branching stone in the kidney for many years without suffering much inconvenience. It was the small stone that caused symptoms.

Dr. W. F. Litchfield described a case of the "mysterious disease" from Bourke. He pointed out that the exact nature of this disease had apparently not been determined, and the opportunity which had been offered him to study one of the cases had been eagerly seized. The patient was a child aged two years. He had been taken ill suddenly, and within three hours was in convulsions, with a temperature of 103° F. He had come from Bourke five days before, because two children had died in the house in which he lived of the so-called "mysterious disease" two weeks before. The child was kept in hospital, and for seven days there was continuous fever, ranging between 100° and 104° F. The temperature fell by lysis, and reached the normal line on the tenth day. The patient had had convulsions on the second and third day after admission, and it had been necessary to administer ether. On the first day extreme dyspnœa and stridor had been marked; intubation had been carried out and effected some relief. The patient was unconscious for four days, and the return to consciousness had been gradual. On the fourth day 30 c.cm. of anti-meningococcal serum had been given subcutaneously. The patient was convalescent at the time of reporting. Dr. Litchfield read the notes on the bacteriological investigations carried out by Dr. Harriet M. Exton. On the second day of illness 30 c.cm. of cerebro-spinal fluid had been withdrawn. The fluid was under increased pressure, but was clear. There were no cells and no bacteria in the smears made from the deposit. No growth was obtained on culture. On the following day a blood culture was made and a Gram-negative diplococcus was grown. Unfortunately the flask containing the culture broke, and consequently subcultures could not be prepared. The diplococcus was indistinguishable from the meningococcus.

A blood count was made on the third day. There were 3,500,000 red blood corpuscles. The hæmoglobin content was 70% and the colour index 1. The red cells showed poikilocytosis and anisocytosis. Metachromic changes were seen. The leucocytes numbered 16,000. There were 76% polymorphonuclear neutrophiles and 24% lymphocytes. Lumbar puncture was again performed on the same day, but no cells and no pus were discovered. Three days later a Gram-negative and a Gram-positive diplococcus and a Gram-negative bacillus were grown from the swabbings from the nasopharynx. On the eighth day a blood count was again made, with the following result: red blood cells, 5,200,000; hæmoglobin, 90%; colour index, 0.8; leucocytes, 14,000; polymorphonuclear neutrophiles, 58%; and lymphocytes, 40%. There was still some slight poikilocytosis, but otherwise the blood picture was normal.

In discussing the diagnosis, Dr. Litchfield recalled the history, the fact that a Gram-negative diplococcus had been recovered from the blood and the sudden onset. He pointed out that the symptoms resembled to some extent those of meningitis. He suggested that it might have been an atypical infection with the meningococcus. He referred to the investigation which Dr. W. G. Armstrong was undertaking. It was possible, however, that the organism might have been an aberrant form of the pneumococcus.

Dr. Robert Dey pointed out that these mysterious cases were still occurring in the neighbourhood of Bourke in con-

siderable numbers. More recently adults had become affected. In children the disease was characterized by sudden fever and convulsions. There were no other symptoms. Death followed in a comparatively short time. The cerebro-spinal fluid was under considerably increased pressure. He stated that much uneasiness was being experienced in the district.

Dr. Sydney Jamieson expressed the opinion that these cases were instances of meningococcal septicæmia. The meningococcus was closely allied to the pneumococcus, and he believed that the modern view of pathologists was that pneumonia was a septicæmia with a focus of infection in the lung. He asked Dr. Litchfield whether Kernig's sign, retraction of the head, and herpes had been present.

Dr. E. H. Binney raised the question whether these cases might not have been instances of poisoning. He asked Dr. Litchfield if he had any knowledge as to whether an inquest had been held in any of the cases, and, if so, whether the contents of the stomach had been examined.

Dr. R. Gordon Craig referred to the fact that an official investigation was being carried out by the officers of the Board of Health. He had no doubt but that the nature of the disease would be ascertained.

In his reply, Dr. Litchfield stated that he had only seen the one patient. In this case there were no herpes, no rash and no retraction of the neck. He was inclined to agree with Dr. Jamieson that the case described by him was one of meningococcal septicæmia. From the information he had received he thought it probable that some of the cases were true cerebro-spinal meningitis, that others were anomalous forms of the same disease and that still others were septicæmias.

Dr. S. Evan Jones read a report of a case of Huntington's chorea (see page 376).

Dr. W. H. Litchfield referred to the case of the four-year-old child of the patient, marked on the heredity chart as suffering from chorea. The movements were rather ataxic and clumsy than truly choreic. Neither the face nor the hands were affected. The mental condition was not markedly deteriorated. There was some kyphosis and hollowing out of the chest, and the shoulders were hanging forward.

Dr. R. Gordon Craig considered that the chart which Dr. Jones had exhibited demonstrated that these people did not recognize their responsibilities. It was quite obvious that when a person was suffering from a disease which was as hereditary as Huntington's chorea, they should not be allowed to marry.

Dr. Jones thanked Dr. Litchfield for having referred to the case of the child. He agreed with Dr. Gordon Craig, but pointed out that experience taught that these people did not consider their responsibilities. Only one member of this particular family had remained single.

Dr. R. B. Wade read the notes of a case of congenital stenosis of the duodenum, and demonstrated the stomach and duodenum. The history of the condition was not very definite. The child had gained about 1 lb. in weight during the first three months of life, and then lost the same amount of weight, so that at the age of 5 months when Dr. Wade first saw it the weight was the same as at birth. All the symptoms of congenital pyloric stenosis were present. The mother had noticed three distinct waves of peristalsis, the one at the costal margin, the second half-way between the ensiform cartilage and the umbilicus, and the third at the level of the umbilicus. The vomiting was projectile in character. The infant passed solid fæces and the urine every day. The diagnosis of pyloric stenosis was made, and an attempt was made to deal with the condition by medical means. Dr. Wade pointed out that cases of pyloric stenosis usually recovered spontaneously without operation if there was free urination and if the tissues retained their elasticity. A fold of skin pinched up between the fingers would not remain as a fold in these cases. Notwithstanding the fact that the skin of his patient had not lost its normal elasticity, he had come to the conclusion that an operation was essential, as the child was not improving. At the operation he had found that the body of the stomach was markedly hypertrophied, but that the pylorus was patent and admitted the whole of his index finger. The upper part of the duodenum had been converted into a dilated pouch, and the walls were much hypertrophied. At the lower end of this pouch there was an extreme degree of stenosis. The opening was so small that at the time of the operation he failed to recognize it, and it was with some difficulty that a very fine probe could be passed through it. He performed posterior gastro-enterostomy. Unfortunately, the child died 20 hours later. Dr. Wade expressed his amazement at the fact that the child had lived so long with such an extreme degree of stenosis. In regard to the third peristaltic wave, he raised the question whether it might not be useful in differentiating between stenosis of the duodenum and that of the pylorus. He recalled an explanation which Dr. Flynn had given at a previous meeting of the Branch for the occurrence of atresia situated in the second part of the duodenum. This corresponded to the junction of the fore and mid gut, and was therefore more liable than other portions of the intestinal canal to developmental errors. The junction was said to be situated immediately below the opening of the bile duct. From the specimen exhibited he was able to demonstrate that the stenosis in his case was above the opening. The absence of bilious vomiting had no diagnostic importance.

Dr. E. H. Binney asked Dr. Wade why he had not performed jejunostomy. He believed that Moynihan had advocated this operation in all extreme cases.

Dr. D. Kelly asked Dr. Wade which was the best time to operate in cases of atresia of the upper part of the intestine. He was inclined to the opinion that it was inadvisable to wait until wasting occurred. Death was usually due to starvation. He suggested that once the diagnosis of pyloric stenosis or of atresia of the bowel was made, the operation should be carried out. He also asked Dr. Wade whether he preferred a posterior gastro-jejunostomy or direct division of the muscle of the pylorus.

Dr. Wade, in reply, pointed out that jejunostomy was only an operation of urgency. He had no doubt that it would not have been the correct operation in his case. The child had survived the operation for 20 hours, and had high fever at the time of death. He presumed that this was due to the sudden flooding of the intestine with food. He recognized two classes of cases of pyloric stenosis. In the first the little patients passed no fæces and very little urine, and there were signs of dehydration, as evidenced by the loss of elasticity of the skin. In the second, fæces were passed occasionally, the secretion of urine was almost normal, and there was no dehydration. In the first class he operated at once, while in the second he employed medical means. These patients usually recovered. He considered that Ramsden's operation was the operation of choice.

Dr. Sydney Jamieson demonstrated two pathological specimens:—

(1) *Subserous and interstitial myo-fibromata, with one mass producing marked pressure upon the rectum.*—The patient was a female, aged 41, who had complained of a sensation of fullness in the lower part of the abdomen and of the passage of small ribbon-shaped stools. She had noticed during the past three or four years that these symptoms had gradually increased in intensity. On examination of the abdomen a large solid mass was discovered continuous with the uterus and corresponding in size to a three months' utero-gestation. *Per vaginam* the cervix was found to be high, and on bi-manual examination the mass was found to be continuous with the uterus. The cervix was found to descend slightly when the upper pole of the mass was pressed upon. A hard, rounded mass was felt within the rectum, about an inch from the anal orifice, pressing upon the lower part of the rectum from a situation within the pouch of Douglas. The only other symptom detected was some atonic dyspepsia, apparently the result of chronic constipation. A large fibromyoma of the uterus was diagnosed. The tumour was removed by Dr. George Armstrong, and the patient made a good recovery. Dr. Jamieson demonstrated the specimen removed at the operation. The uterus was the seat of a considerable number of subserous and interstitial fibromyomata. One of the subserous masses was found to be attached by a narrow pedicle, and from this attachment a mass of growth about two-thirds of the size of a fœtal head was found hanging down behind the uterus, firmly wedged into the recto-uterine pouch. Fortunately for the

operator, no adhesions to the neighbouring structures had been formed.

(2) *Chronic fibroid phthisis, with secondary hypertrophy of the right ventricle; a mass of tubercular glands pressing on the left recurrent laryngeal nerve; secondary pleurisy, with effusion and pericarditis, both of tubercular origin.*—The patient was a man, aged 41 years, an agent, who had been admitted to the Sydney Hospital on December 16, 1916, with a diagnosis of asthma. He had had an attack of pleurisy nine years before, and several in the interval. He had had a chronic cough for many years. A sister of the patient suffered from asthma, and had had one attack of hæmoptysis. The patient had not had any hæmoptysis, but had lost weight during the eight months preceding admission. He was a thin, wiry-looking little man, and was suffering from intense dyspnœa, necessitating a position of orthopnœa. Occasionally he coughed up small quantities of muco-pus. He looked very ill, and was emaciated. His voice was almost aphonic. Upon examination it was found that the chest was permanently over-distended. Signs of chronic interstitial pneumonia were detected, with marked shrinkage of both apices and some subclavicular flattening on both sides. The inspiration was stridulous, and the breath-sounds for the most part harsh and of a broncho-vesicular type. The expiration was much prolonged. Vocal resonance and vocal fremitus over both lungs were increased, especially at the apices. The left vocal cord was immobile. The apex beat of the heart was in the sixth interspace, just outside the nipple line, and was diffuse and feeble. The heart sounds were much muffled. The pulse was slow, feeble, but regular. Two days later the breathing was much easier. A patch of dulness, with friction sounds, was detected over the upper anterior portion of the left lung. The sputum was slightly blood-stained. The radiographer, who had made a screen examination, reported the presence of a large aneurysm of the aortic arch. No tubercle bacilli were found in the sputum. There was still much dyspnœa, and the patient experienced much difficulty in expelling the sputum. On the fifth day the patient was much worse, and was gasping for breath. On the following day the sputum was blood-stained. He was placed on Tuffnell's diet, and increasing doses of potassium iodide, up to 30 grains three times a day, were given. On the 2nd of February the patient was much more comfortable. The heart beat was slightly irregular, and there was some œdema of the legs. The blood pressure was reduced to 80 mm. Hg., and was equal on both sides. Calcium lactate was given, but as it deranged his digestion this was stopped after a few doses. By the 9th of March a pericardial friction rub had developed. Shortly after this an effusion collected at the base of the right lung. The fluid was withdrawn, and the patient experienced considerable relief. He died suddenly a few days later. The specimen exhibited included the heart, which was affected with well-marked tubercular pericarditis. The right ventricle was greatly hypertrophied. A large mass of tubercular glands was found in the posterior mediastinum. The cause of the hypertrophy of the right ventricle was found in the lungs, which were in a condition of carnification. Well-marked fibrotic tubercular infiltration was present.

Dr. Harold F. J. Norrie read a short paper on the removal of a tumour from a nerve trunk, with an attempt at heterogenous implantation (see page 377).

Dr. D. Kelly considered that Dr. Norrie took too optimistic a view of the result of his intervention. He pointed out that no regeneration of nerve fibres could have occurred within so short a time. Regeneration of a divided nerve did not become evident for three or four months, and often continued for many years, even as long as thirty. He was doubtful whether the cat's nerve would prove of use in this case. Any material would suffice to direct the growth of the newly-formed nerve fibres to span the gap between the divided ends of the nerve. Dr. Norrie would have been well advised had he left the nerve intact and removed the fibroma.

Dr. R. Gordon Craig thought that Dr. Norrie should be congratulated for having brought this case before the members. He was of opinion that Dr. Norrie would not adopt the same course in a second case. Nerve tumours were very rarely malignant, and they did not invade the axis cylinders. By means of a careful dissection the tumour could have been removed without damage to the nerve fibres, which were always pushed aside by these growths. If the surgeon did not feel justified in attempting the dissection, the growth should have been left alone. He agreed with Dr. Kelly in regard to regeneration. The patient would probably have peroneal paralysis, with a resulting *talipes varus*, for the cure of which an orthopædic operation could be performed.

In his reply, Dr. Norrie stated that he had not felt justified in attempting to remove the tumour by dissection. The patient was suffering considerable pain, and he was therefore disinclined to leave the tumour alone. He had not intended to convey the impression that he regarded the improvement was due to nerve regeneration.

Dr. G. H. Walton Smith read a paper on a case of Raynaud's disease. (This paper will be published in a subsequent issue.)

Dr. W. Chenhall demonstrated a specimen of a *dermoid cyst*, which he had removed from a young Jewess, aged 22 years. Her last child had been born 18 months before. She had had symptoms for several months. Dr. Chenhall laid stress on the diagnostic importance of pain in a young woman. The cyst contained a large quantity of hair. In discussing the histogenesis he dealt with the differences between dermoid cysts and teratomata. The latter tended to develope into sarcomata and carcinomata.

MEDICO-POLITICAL.

A special meeting of the Council of the Victorian Branch was held at the Medical Society Hall, East Melbourne, on April 20, 1917, Professor R. J. A. Berry, the President, in the chair.

The President explained that the meeting had been convened for the purpose of giving the representatives of the Council of the New South Wales Branch an opportunity of expressing their views in favour of a proposal which would be moved at the meeting of the Federal Committee to take steps with a view to the introduction of compulsory enrolment of all medical practitioners as persons liable for enlistment in the Australian Army Medical Corps. He welcomed the President of the New South Wales Branch, Dr. R. Gordon Craig, and the Honorary Secretary, Dr. R. H. Todd, as representatives of that Branch. He also welcomed the Principal Medical Officer of the No. 3 Military District, Colonel G. Cuscaden. In his opening remarks he pointed out that the Victorian Branch was placed in the exceptional position of being in close touch with the Department of Defence, owing to the fact that the Federal Government had its seat in Melbourne. His Council had received certain information from headquarters which had led them to oppose the proposals of the New South Wales Branch.

Dr. R. Gordon Craig gave a short account of the history of the movement in New South Wales, which had led to the adoption of the suggestion that compulsion was required to establish an equality of obligation. He stated that in the areas of certain local medical associations within New South Wales 90% of the members had become enrolled in the Army Medical Corps. The remaining 10% of the members had unfortunately failed to recognize the equity of the proposition that every member of the medical profession was under a moral obligation to perform some service to the Empire.

The President dealt with the information which had influenced the Council of the Victorian Branch in arriving at its decision in connexion with the matter under discussion. The Council has determined that it was the duty of every medical practitioner to set an example to others by offering his services to the Department of Defence. The Council had come to the conclusion that as the community had rejected the proposal for compulsory service, no one section should be subjected to conscription. The Director-General of Medical Services had informed the Council that the Department of Defence could not make use of all the medical men if enrolled compulsorily in the Army Medical Corps Reserve. He had as many officers in the Reserve at the time as he could use. The Council had raised a doubt

whether the New South Wales Branch recognized the distinction between the Australian Army Medical Crops and the Australian Army Medical Corps Reserve. Moreover, the Council had felt that it had no jurisdiction over the whole of the members of the Branch. They had been informed on high authority that no section of the community could be enrolled compulsorily without an Act of Parliament. The opinion had been expressed that no Government would introduce a measure for the conscription of a section of the community, in view of the fact that the conscription issue, as applied to the whole community, had been rejected.

Dr. R. H. Todd said that he had a complete answer to all the arguments which Professor Berry had adduced against their proposals. He would, however, prefer to listen to all the objections that could be brought forward before he replied.

General R. H. J. Fetherston held the opinion that if the New South Wales scheme were carried into effect, it would be of great advantage to the Department, even though there were more men in the Reserve than could be utilized at that moment. Many officers had been demobilized during the past few months. He announced that since the beginning of the war 994 medical men had been accepted for active service and had gone overseas. There were 384 men on the active list of the Army Medical Corps for home service, and 978 on the Reserve, making a total of 1362. This number included 312 officers who had enlisted for active service abroad and had gone overseas. This left 1050 medical officers liable for service within the Commonwealth. He admitted that this large number of men liable for home service was out of proportion to the present requirements. The distribution of the men was as follows:—

Military District.	Active List.	Reserve.	Total.
No. 1	46 ..	86 ..	132
No. 2	151 ..	354 ..	505
No. 3	111 ..	283 ..	394
No. 4	39 ..	142 ..	181
No. 5	17 ..	80 ..	97
No. 6	20 ..	33 ..	53

General Fetherston further stated that between 250 and 300 Medical Officers were doing part-time service in Australia. The number varied from day to day.

Dr. R. H. Todd, in his reply, stated that all the difficulties that had been brought forward had presented themselves to the members of the New South Wales Branch. The members had felt that the higher duty they had to fulfil must overweigh all these objections. They were not concerned whether the scheme was acceptable. If the Government refused to be influenced by the proposal, the members of the medical profession would have done their duty. No man possessed of a consciousness of right and wrong would refrain from pursuing a course merely because he had been told that his efforts would be fruitless. He would rather fight all the harder for it. From the point of view of patriotism they would not be doing their duty if they failed to place their services unreservedly at the disposal of the Government. The Council of the New South Wales Branch had passed a resolution in favour of returning the reply "Yes!" to the question referred to the people. The decision of the community as a whole had been the other way. Why should the wishes of the medical profession be set aside when it had responded "Yes"? The medical profession was essential to the military organization, as no other section of the community was. They should therefore be given the opportunity of asking that their services should be accepted. If the Government did not want their services, they would have to say so. He had looked at the Defence Act and the War Precautions Act and had found that the Governor-General could, by Proclamation, conscript every member entitled to be placed on the medical registers of the several States. He asked whether the medical profession should be required to stand aside and acquiesce in the iniquity because the reply to the conscription question had been in the negative. He held that they should be able to rise above the petty restrictions of red tape, as illustrated in the cry "too many men!" In New South Wales they had considered the question how they could cleanse themselves of the humiliation of the referendum vote. One local medical association had proposed that every man should apply for a commission. The result of this proposal was that 90% of the members of that local association had offered their services. But 10% had stood aside, some for valid reasons and the remainder because they were shirkers. In justice to those who had valid reasons, of whom uncharitable remarks might be made, and because it would mean the loss of much time and energy if further campaigning were required, they had resolved to ask the Government to introduce conscription of the whole profession.

It was held that the military camps and hospitals were excellent recruiting grounds for the Australian Imperial Force. He was an advocate for quick changes in the camps, in order that medical practitioners would not be kept long away from their practices. Dr. Todd referred to the men at the front who should be relieved. The *British Medical Journal* of February 10, 1917, had contained a short account of the proposals of the Director-General of National Services in England to organize the medical profession, and he urged the members of the Victorian Branch to consider whether they could not adopt the same methods in Australia.

Mr. G. A. Syme said that they had just listened to a speech in favour of compulsory enrolment for service abroad. If the members would advocate that and would ask the Government to pass an Act of Parliament for that purpose, he would be heart and soul with them. The arguments advanced by Dr. Todd were entirely beside the question for home service. He had told them that the movement had arisen as a result of the referendum voting. The question submitted to the people was in connexion with service abroad and not with home service at all. He (Mr. Syme) failed to see how enrolment for service in Australia would aid in securing men for service with the forces abroad. He had made the experience that very few of the men who had served in the military hospitals at home, except those who had enlisted for service abroad, had at a later date entered the Australian Imperial Force. He thought that Dr. Todd had been beating the air, since men were not wanted for home service. In England they had universal service, and therefore his quotations from the *British Medical Journal* had no application to the matter under discussion. He confessed that he had heard nothing that could induce him to change his opinions.

Dr. J. F. Wilkinson thought that the Victorian Branch was endeavouring to arrive at the same point as the New South Wales Branch, although in a different way. They had suggested to the Federal Committee that their suggestions were more practicable. He raised the question whether the Federal Committee, which did not represent the medical profession in Australia, ask for conscription to be applied to the whole of the medical profession. The Federal Committee could not even announce that it had every member of the British Medical Association in Australia behind it. He doubted whether any Government could accept a scheme for conscription, with a reservation that a committee would determine who was to go and who was to remain.

Dr. W. Kent Hughes pointed out that the proposal was for compulsion to serve in the Australian Army Medical Corps, for which the Department of Defence had already more than a sufficient number of medical officers. Steps should be taken to increase the number of medical officers in the Australian Imperial Force, and in this way to allow those who had been serving abroad for a long time, to return home. He thought that something might be done to differentiate between military organization and medical organization. He wished that medical men would go as Dr. or Mr. So-and-So. There was too much talk of Lieutenant-Colonel or Surgeon-General So-and-So. He also pointed out that if they proffered a request for conscription before the Federal elections they would harm the Nationalist Party.

Dr. W. R. Boyd said that he had hoped to have heard some argument other than patriotic argument put forward. If some arrangement could be devised for utilizing the whole profession for service abroad the Victorian Branch would be with the New South Wales Branch wholeheartedly. The

Government had the power to call on the whole of the medical profession at once for home service, if they wanted to. They had more men than they knew how to use.

Dr. F. L. Davies asked whether any Government could conscript a class of the community without having the assurance that every member of that class was in favour of the proposal. If every member of the medical profession were in favour of conscription for home service he would join the Reserve and thus bring about the same result. Much of the argument that had been used was in favour of compulsory enlistment in the Australian Imperial Force, which no Government at the present time would dare to bring into effect. He considered that it would do harm to ask for it at the present juncture. It would not help in case of hostile invasion, for in such an event the services of the medical profession would be secured by a Proclamation under the Defence Act. He held that the whole of Dr. Todd's arguments fell to pieces.

Dr. R. L. McAdam said that the policy of the Government was to oppose conscription in any form whatever. To entertain a suggestion of limited conscription would imperil the cause of the Nationalist Party.

Colonel G. Cuscaden failed to see any great necessity for conscription for home service. He had not experienced any difficulty in securing the services of men for the Reserve, and if the whole of the medical profession were conscripted he could not utilize every man. He considered that something should be done to relieve those who had left lucrative practices at the outbreak of hostilities. This matter, however, was not under the control of the Director-General of Medical Services in Australia. The Director-General of Medical Services in England considered that the services of the men in hand were of greater value than those of the men who might be sent out from Australia.

General Fetherston pointed out that under a proclamation all men between certain ages would be called up without any consideration being given to their avocations. Every man would be called up as a private. But if he happened to be a legally qualified medical practitioner he would be offered a commission. If the medical man refused to enlist, he would be conscripted and would have to fight as a private. No distinction could be recognized. It was the same in England. It was impossible to go behind an Act of Parliament. He thought that it would be impossible to call up a class of the community.

Dr. R. Gordon Craig said that the whole matter had been put in a different light. It was clear that if the Federal Committee were to apply to the Government in the manner suggested, the medical men could not expect to be treated otherwise than as citizens; they could not obtain treatment as a class distinct from all others. He considered that the arguments used by the members of the New South Wales Branch had been met in every particular. The difficulties in the way of the accomplishment of the wishes of his Branch were insurmountable. Their endeavours had been to make the shirkers recognize their national duties. There was yet room for organization to provide for future eventualities. He thought that the men at the front carrying out administrative work should be permanent officials, but he also considered that it was their duty to organize at home, so that the physicians, surgeons and specialists at the metropolitan hospitals could be formed into suitable units for exchange with men in similar positions at the front.

Dr. R. H. Todd held that all the arguments advanced in opposition to the New South Wales Branch proposals were debatable. He would, however, be perfectly satisfied the Federal Committee would apply to the Government to have all medical men enrolled in the Australian Imperial Force, and he trusted that the Council of the Victorian Branch would instruct its representatives accordingly.

The representatives of the New South Wales Branch then withdrew. The Council proceeded to discuss the matter in private. In the end the following resolutions were announced:—

(i.) That the Council of the Victorian Branch re-affirm its previous decision.

(ii.) That the Council of the Victorian Branch request the Federal Committee to consider the most practicable means of securing the services of the whole of the Australian medical profession for service abroad.

The President thanked the members of the Council of the New South Wales Branch for their whole-hearted espousal of a cause which had induced them to travel so great a distance in order to lay their views before the Victorian Branch.

Dr. Gordon Craig and Dr. Todd thanked the Council of the Victorian Branch for the hospitality shown them during their short visit.

The following have been elected members of the New South Wales Branch:—

Dr. H. V. Gillies, South Sydney Hospital, Waterloo.
Dr. A. R. Hudson, Balmain District Hospital.
Dr. Ettie Lyons, 109 Ocean Street, Woollahra.

MEDICAL INSPECTION OF SCHOOL CHILDREN IN QUEENSLAND.

The annual report for the year 1915 of the Secretary for Public Instruction of Queensland is a document occupying some 31 pages, of which one is devoted to medical and dental inspection. The Secretary points out that the extension of the system of medical and dental inspection is part of the policy of the Government. The chief aim is, as far as is practicable, to have each school visited once a year for this purpose. In the financial year 1914-1915 £6,609 were expended on this work. In the year 1915-1916 £10,526 were provided on the Estimates. Provision was made for the appointment of three additional full-time medical inspectors, and four nurses, but in deference to the wishes of the Defence Department the appointment of these officers was deferred. A scheme of "following up" has been inaugurated in Brisbane. According to this scheme, if the parents do not notify the head teacher within a specified time that the physical defects detected in their children by the medical inspector have been attended to, the school nurse visits the homes and attempts to induce the parents to take the action recommended by the inspector. The Department of Public Instruction at the time the report was framed was negotiating with the Home Office for the purpose of making arrangements whereby free treatment could be accorded to necessitous children at State-endowed hospitals, when these children were referred to the hospitals by the medical inspector for treatment. It had been arranged, with the concurrence of the Dental Board, that the dental inspectors should give free treatment to children in necessitous circumstances, and to children in places where a dentist was not available. The term "necessitous circumstances" is taken to mean the condition of the family when the income of the parents does not exceed £156 per annum, or £30 per annum per member. In the metropolitan area necessitous patients were treated free of cost at the Brisbane Dental Hospital. The annual departmental grant to this Hospital was increased by £100 for the purpose. The Secretary regrets that no extension of the work of medical inspection has been possible during the year 1915. When the report was issued Dr. Bourne, the Chief Medical Inspector, the late Dr. Roger, the Ophthalmic Inspector, and Dr. Sweet, the full-time Medical Inspector, were absent on military service. The work was being performed by half-time medical officers, while the Commissioner of Health, Dr. Moore, was acting in a consultative capacity in connexion with administrative matters. It is to be hoped in the interests of the children of the State that a long continuation of these temporizing methods will not take place, and that the Department will be enabled to proceed in its scheme of extension within a short time.

Added to the main report are various appendices, including the report of the Chief Medical Inspector of Schools, the report of the Assistant Medical Inspector, the reports of the three part-time Inspectors, and the reports of the Dental Inspectors. Each medical inspector deals with the work accomplished by her or him. There is, apparently, no attempt to collate the returns for the whole State.

Dr. Eleanor E. Bourne, the Chief Medical Inspector of Schools, visited 101 schools during the year 1915. The district covered included the neighbourhood of Ponona and

Cooran, Gympie and the surrounding districts as far as Maryborough, and the majority of the schools on the Theebine-Nanango branch line. At the 101 schools visited 2,109 boys and 1,951 girls were examined, making a total of 4,060 children. In 957 children remediable defects were discovered, and the parents were notified that if these defects were not remedied they would probably interfere with the mental progress and physical development of their children. The frequency of these defects was 24.4% of the boys and 22.8% of the girls examined, or 23.6% of the children. Dr. Bourne deals with a few of the principal defects. About 12% of the children required dental treatment. These defects, however, were limited to those children who had neglected to follow the advice of the school dentist, or whose dental decay had developed since the visit of the dentist. She refers to the reports of the Dental Inspector for more accurate information in regard to the frequency of dental defects. In 331 children adenoid vegetations were discovered, and in 244 there were enlarged tonsils. It thus appears that 8.2% of the children were suffering from adenoid vegetations. Dr. Bourne unfortunately records the number of defects without giving the number of defective children, and it is therefore impossible to ascertain from her figures the percentage of children suffering from adenoid vegetations and enlarged tonsils or either of these conditions alone. She points out the necessity of having these defects remedied in order that the children may be improved mentally and physically.

Defective vision was discovered in 92 children, or 2.3% of the total number examined. The parents were not notified unless the defect produced a vision of $^6/_{12}$. The percentage of children with notifiable defects was 1.3. Teachers were instructed to avoid eye strain, and to place the children in a good light when minor defects were present. Three boys were wearing spectacles which actually increased the visual defect, while four girls wore spectacles which did not improve the vision, and four wore spectacles which corrected the defect partly. In eight cases among the girls spectacles were worn by children who had no visual defect. Only three of the girls were wearing suitable spectacles. Dr. Bourne regards this as evidence of a certain degree of unscrupulousness among the vendors of these articles. Visual defects appeared to be more common among the town girls than among the country girls, and Dr. Bourne suggests that the greater facility for attending picture shows may be in part responsible for this difference. She also calls attention to the fact that in the large schools knitting has recently been introduced. In this regard she is not apprehensive, as it may be anticipated that when practice makes the use of the eyes almost unnecessary for knitting this factor in the production of eye strain will disappear. She calls attention to the fact that the Chief Medical Officer of the Board of Education, England, has found that 19.2% of the children leaving school in industrial towns had defective vision. In Victoria 12% of the town boys and 5.9% of the country boys, and 10.3% of the town girls, and 8.2% of the country girls suffered from defective vision. The open-air life led by the majority of the Queensland children, and the strong illumination in the Queensland schools are, in her opinion, the most potent factors in the reduction of visual defects among the Queensland school children. There were three cases of trachoma, one of spring catarrh, and one of conjunctivitis among the children examined by her.

In regard to physical defects, Dr. Bourne states that she found 68 cases of malformed palates, and 29 of malformed chests. There were congenital deformities in 19 children. The attention of the teachers was directed to the physical condition of children suffering from weak heart, defective vision, deafness, spinal curvature, epilepsy and hyperthyroidism. Instructions were given in regard to the handling of these children, and in certain cases the school work or the environment was modified. Deafness was present in 16 children, weak heart in 23, spinal curvature in one, epilepsy in one, and hyperthyroidism in one. The heart defects are classified as follows: There was dilatation in 7 boys and 7 girls, mitral regurgitation in 2 boys and 6 girls, mitral stenosis in 2 boys, a patent *foramen ovale* in 2 boys, arrhythmia in 2 boys and 5 girls, and hæmic bruits in 2 boys. Muscular wasting, in the majority of cases due to the effect of anterior polymyelitis, was met with 17 times. Six of the boys had hernias.

Of the 4,060 children examined seven were mentally deficient. This is equivalent to a frequency of 0.15%. Dr. Bourne states that "even if this figure were taken for an average of the State, we should have 180 mentally defective children, who cannot be benefited by ordinary school training, and who will become a trouble to their guardians, to themselves, and a constant expense and menace to the community." She has reason to believe, however, that the extent of mental deficiency is greater than these figures would indicate, and she therefore pleads for the establishment of two residential colonies, with schools attached, where special training could be given. She holds the opinion that these colonies could be made self-supporting, or nearly self-supporting.

In about 30% of the cases notified to the parents treatment of the defect discovered at the inspection is carried out. While recognizing that this state of affairs is highly unsatisfactory, Dr. Bourne calls attention to the fact that in England, where there are 350 school clinics in operation, and where "following-up" schemes and numerous care committees are in operation, only 56.5% of the children notified are treated. In Queensland there are three whole time dental inspectors, each in charge of a travelling clinic, and three more are to be appointed within a short time. In addition, there is a well-equipped stationary clinic in Brisbane. Provision therefore exists for the treatment of all dental defects in necessitous children. In West Queensland where acute blight and trachoma are prevalent, a specially qualified ophthalmic inspector collaborates with the local medical practitioners, and the children are provided with facilities for treatment. The visual defects are determined by the Ophthalmic Inspector, and this officer supervises the treatment of external eye diseases. The operative treatment for the removal of enlarged tonsils and adenoid vegetations is carried out gratuitously for necessitous children at State-aided hospitals and in sparsely populated centres, where no institutional treatment can be accorded, the Department finds it more economical to pay the necessary travelling expenses rather than to establish a hospital. Other defects can be handled with the existing machinery, and Dr. Bourne therefore comes to the conclusion that there is no necessity for setting up school clinics, and that the percentage of untreated defects would not be materially diminished if clinics existed. By utilizing existing institutions the work can be performed economically, and no objection is raised by those working in the hospitals.

Dr. Bourne concludes her report with some remarks on the physical training and on the instruction in physiology of school children.

Dr. Roger, the Ophthalmic Inspector, was unable to prepare his report before he was called away for military purposes. His untimely death on active service was a severe blow to the Department. From his notes, Dr. Bourne finds that he examined 1,333 children. Of these 77.9% were found to be free from disease and to possess perfect vision. Undoubted trachoma was discovered 96 times, and in 13 cases there was a suspicion of the trachomatous nature of the eye condition. Corneal complications were met with 14 times. The trachoma was cured 51 times. Defects of vision were found in 196 children. Refractions were performed 103 times. In not less than 54 instances the parents refused to allow the Inspector to examine the eyes of the children. Dr. Roger visited the schools in the districts of Goondiwindi and St. George and west of Townsville. In conjunction with Dr. Priestley he made a special study into the nature of the conjunctival affection met with in West Queensland, and these gentlemen published an article on the results of their observations in *The Medical Journal of Australia* (July 10, 1915).

Dr. Elizabeth M. Sweet, the Assistant Medical Inspector of Schools, visited during the course of the year 134 schools, and examined at these schools no less than 7,457 children. Of this number 5,358 were in schools situated north of latitude 20°, and 2,099 in schools south of that latitude. In 1914 22.39% of the children were found to have notifiable defects in the northern schools, and in 1915 21.8%. In the southern schools 23.41% of the children were notified as defective in 1914, and 18.62% in 1915. The most common defect found was adenoid vegetation; 13.6% of the children

in the northern schools, and 9.3% of the children in the southern schools were affected in this way. Enlarged tonsils occurred in 4.3% and 7.33% respectively. In addition a considerable number of children were notified on account of a high palate. Of the other defects of this region hare lip, cleft palate, bifid uvula, pharangitis, glossitis, pharangeal defects, deflected nasal septum, enlarged tubinates, rhinitis, nasal obstruction, Hutchinson's teeth, etc., accounted for 50 notifiable defects. There were in all 20 defects of the auditory apparatus, one child being deaf and dumb. Defective vision was found in 2.8% of the children, or in other words in 209. In addition there were 49 cases of ophthalmic affections, including two of trachoma, eleven of conjunctivitis, four of corneal opacities, three of iritis and three of blepharitis. Cardiac defects were also frequent. There were 125 cases of mitral regurgitation, 26 of mitral stenosis, and 11 of aortic disease. Anæmia was met only nine times.

Among the deformities there were 30 of the chest and 15 of the spine, including nine cases of scoliosis. There were 19 cases of deformities of extremities, and 13 of herniæ and other abdominal deformities. The defects of the nervous system included 18 instances of sub-normal mentality, two of hypopituitarism, and one of chorea. Dr. Sweet aims at awakening and developing a "sanitary conscience" in the children, and solicits the assistance of teachers in her endeavours. She has found the school buildings and grounds improved from their former condition. She admits that the number of children examined and the distances travelled have rendered it impossible for exhaustive diagnoses to be made. On the discovery of a defect the parent is notified, and the work of detailed diagnosis and treatment is left to the doctor selected by the parent.

The outbreak of diphtheria in the Nundah and Harris districts necessitated special visits, and a bacteriological examination of the mucus of the children's fauces.

Dr. L. G. Thompson, one of the part-time medical inspectors, undertook the work of medical inspection of the school children in the Rockhampton area. All the schools in the area were visited once. A careful and detailed examination of pupils recently enrolled was carried out, as well as a re-examination of the entire school and an examination of the children who had been found defective on the previous examination. He records epidemics of measles and mumps, and a mild epidemic of diphtheria which affected various schools. While the parents of children living in the poorer areas were more eager than others to have their children examined, no attempt was made in the majority of cases to have the defects which were discovered remedied. He calls attention to the fact that two hospitals exist where treatment is available. He did not undertake a routine examination of the teeth, but was impressed by the want of cleanliness and bad condition of the mouth generally. In 37 children the tonsils were found to be enlarged; in 35 there was enlargement of the glands of the neck, and in 28 there were adenoid vegetations. He records that the parents are recognizing the importance of these conditions, and are eager to secure proper treatment for them. The number of eye defects was 29, and of ear defects 10. No case of severe trachoma was seen. In ten of the children a cardiac defect was discovered, and in nine there were evidences of anæmia. In all, 950 new children were examined, and 2,837 old pupils were re-examined. Defects were found in 197 of the new children, and in 551 of those examined or re-examined. In 53.9% remedies were applied for the defects notified.

Dr. J. Cameron Hemsley, an acting part-time medical inspector, examined 2,217 children at 19 schools in Brisbane. The defects discovered included 183 instances of adenoid vegetation, 157 enlarged tonsils, 34 defective nasal septa, eight instances of nasal obstruction, one of nasal catarrh, and ten of otorrhœa. Only eight of the children had defective teeth. In 17 a visual defect was discovered, and in seven there was blepharitis. Cardiac defects were discovered six times, and anæmia four times. One case of trachoma was met with. Dr. Hemsley found that the lighting of the school-rooms had been materially improved within recent times, but that further improvement was required in some of the metropolitan schools. He regarded the physique of the children as good, and noted that the immigrant children had a better physique on an average than the Australian-born children. He suggested that all girls with long hair should be compelled to have it plaited. The hair of at least 80% of the girls was infested with *pediculi capitis*.

Dr. H. S. Walsh visited 11 schools in Brisbane, and examined 1,966 children. Enlarged tonsils were found 240 times, and adenoid vegetations 181 times. Nasal defects were present in 37 children, cardiac defects in 37, visual defects in 19, eye affections, including trachoma, in four, and spinal curvature in two. He pointed out that a large proportion of the parents take no notice of the notification. He urged that the faucial, nasal and pharyngeal cases should be followed up more energetically. He also called attention to the frequency of lice in the children's hair. The school buildings and grounds were satisfactory, with the exception of the Central State School, which was "very dirty and dusty, very noisy, and altogether most unsuitable and unhygienic."

The report of Mr. E. Haenke, the Chief Dental Inspector of Schools, and those of Mr. W. N. Watts and Miss N. Muir, Assistant Dental Inspectors of Schools, contain the details of a considerable amount of work accomplished throughout the State. No less than 20,510 children were examined, and only 1,276 children were found with sound mouths. The percentage of children with dirty mouths in the different districts varied between 12 and 16.4. Over 6,000 permanent teeth had been lost or extracted. The number of carious permanent teeth was 45,045. The average number of carious teeth per child varied between 4.8 and 5.5 in the different parts of the State. A very large amount of treatment was given gratuitously to the children, close on 1,000 being attended to. From the reports it appears that conservative dentistry was practised wherever possible.

Naval and Military.

The 290th list of casualties sustained by Australian troops abroad was issued on the last day of April, 1917. This list contains the names of 878 officers, nurses and men. The number of those killed in action or died of wounds was 289, while 31 men died of other causes The total number of officers killed or died of wounds was 34. It is with much regret that we note that among the officers killed in action was Captain G. B. Bailey.

The following awards of military honours have been announced in Supplements to the *London Gazette* of November 10, 14, and 24, 1916, and are published in the *Commonwealth of Australia Gazette*, No. 2, of April 19, 1917:—

Distinguished Service Order.

Major Lewis Wibmer Jeffries, A.M.C.

For conspicuous gallantry and devotion to duty during operations. He tended the wounded and reorganized the stretcher-bearers in the front line at great personal risk. When only a few bearers were left, he himself assisted to carry back the wounded under heavy fire.

Military Cross.

Captain Charles Christopher Corlis, A.M.C.

For conspicuous gallantry and devotion to duty. He tended the wounded under very heavy fire with great courage and determination, working continuously for three days and nights.

Captain William Wallace Stewart Johnston, A.M.C.

For conspicuous gallantry and devotion to duty during operations. When his battalion was relieved, he stayed behind to tend the wounded, and then went forward through a heavy enemy barrage and dressed a wounded officer and several other men in the front trench. He also tended others while returning under fire.

Captain James Sprent, A.M.C.

For conspicuous gallantry and devotion to duty. He tended the wounded under very heavy fire with great courage and determination. He personally supervised and organized the forward portion of tending the wounded right up to the firing line,

Captain David MacDonald Steele, A.M.C.

For conspicuous gallantry and devotion to duty. He tended the wounded under very heavy fire and trying conditions with great courage and determination. It was due to his organization and skill that the wounded men were successfully evacuated.

Captain William Henry Weston, A.M.C.

For conspicuous gallantry and devotion to duty. He established an aid post in the open, and tended the wounded under very heavy fire. He has displayed great courage and determination throughout.

Captain Douglas Dunbar Jamieson, A.M.C.

For conspicuous gallantry and devotion to duty. With two drivers and a man he went with a sand-cart to the left flank. He rescued two wounded men and loaded them into the cart under intense fire. Later, he searched the front for more wounded men.

Captain Geoffrey Hampden Vernon, A.M.C.

For conspicuous gallantry and devotion to duty. He tended and dressed the wounded under heavy fire, displaying great courage and determination. Later, he remained out all night with a wounded man.

The following have been mentioned in the Despatches of the Commander-in-Chief of the Egyptian Expeditionary Force:—

Australian Army Medical Corps.

Major W. Stansfield.
Captain P. Dunningham.
Lieutenant-Colonel G. P. Dixen.
Lieutenant-Colonel D. G. Croll.
Major E. R. White.
Captain B. D. Gibson.
Captain D. D. Jamieson, M.C.
Captain G. H. Vernon.

Vital Statistics.

SYDNEY.

The Government Statistician of New South Wales has issued the usual monthly records of the births and deaths which have been registered in the metropolis of Sydney, the period being that of February, 1917. There were 1,584 births, a number considerably below the average for the month of February during the past five years. The equivalent annual birth-rate was 24.86, while the average for the preceding five years was 26.53 per 1000 of population. The birth-rate in February of 1909 and 1910 was only just higher, while the rates in the corresponding months of 1908 and 1914 were higher, but still below the average. The highest rates during the past ten years were recorded in 1911 and 1913. Of the 1,584 infants born, 122 were illegitimate. The illegitimate birth-rate was 1.92 per 1000 of population. This figure is 0.5 per cent. below the average for the preceding five years, and 5.9 per cent. below the average for the preceding ten years.

The number of deaths registered during the month was 527, as compared with 600, which was the average for the previous five years. The death-rate, expressed as an annual rate, was 8.27. The same rate was recorded in February, 1915, while the rate for February in each year since 1908 has been persistently higher. The number of deaths of infants under one year of age was 97, and the infantile death-rate was 61.2 per 1000 births. This rate is remarkably low, being 21 per cent. below the average for the corresponding month of the previous five years. In February, 1915, the very low rate of 58 was reached, but in 1914 the rate was 102. The average for the corresponding month during the past ten years was 79 per 1000 births. Six very aged persons died; two were 92 years of age, three were 93, and one was 95. Of the total number of deaths 239, or 45 per cent., occurred in hospitals or other public institutions.

Of the 527 deaths, 136 were caused by some form of infective process, and 85 were associated with some pathological process effecting the cardio-vascular system. There were 53 deaths from gastro-enteritis, 25 from tuberculosis, 13 from pneumonia, 8 from diphtheria, 7 each from broncho-pneumonia and pertussis, 3 from enteric fever and the same number from puerperal septicæmia, 3 from acute nephritis, 2 each from erysipelas, syphilis, and acute endocarditis, and single deaths from influenza, simple septicæmia, gonorrhœa, acute rheumatism, simple meningitis, epidemic cerebro-spinal meningitis, acute bronchitis, and tetanus. The deaths connected with cardio-vascular changes included 45 from organic diseases of the heart, and 20 from cerebral hemorrhage. There were 64 deaths from malignant disease, 33 from Bright's disease, 6 from diabetes, 3 from leucæmia, and 7 from cirrhosis. There were 8 deaths associated with the puerperal condition.

INFECTIVE DISEASES.

The Quarantine Department has issued two Bulletins, on March 30 and April 13, 1917.

Variola.

One case of small-pox was reported at Walgett, New South Wales, on April 2, 1917. The last case of this disease reported in New South Wales occurred in December, 1916.

On April 8, 1917, s.s. *Eastern* arrived at Thursday Island from Kobe, via Hong Kong, with a steerage passenger who was found to be suffering from variola. The passenger was landed at the Quarantine Station. Vaccination and disinfection measures were carried out, and the vessel proceeded in quarantine to Townsville, Brisbane and Sydney.

The latest returns from the Dutch East Indies refer to 39 cases of variola, with 17 deaths. A Bill of Health published in Hong Kong for the week ending February 27, 1917, contains the reports of 31 cases, with 20 deaths, while a further Bill of Health gives information concerning seven additional cases. In the Philippine Islands 47 cases of varioloid occurred between February 11 and March 17, 1917. On March 16 a case of variola was reported, and four cases occurred at Zamboanga. During the fortnight ending March 3, 1917, 16 cases of variola occurred in San Francisco. There were two cases reported in the Straits Settlement between February 2 and March 5, 1917.

Plague.

The number of cases of plague notified in India during the fortnight ending February 17, 1917, was 33,093. During the same period 28,162 deaths from this disease took place. Since the publication of the previous Bulletin, 81 cases of plague and 61 deaths have occurred in Java. There were 21 cases and 14 deaths in South Africa between February 5 and March 4, 1917, and 14 cases in Ceylon between February 11 and February 17, 1917. In the Straits Settlements five cases and five deaths occurred between March 23 and April 6, 1917. There were four cases and three deaths in Egypt during the fortnight ending February 15, 1917, and one case and one death in Hong Kong during the week ending February 10, 1917.

Cholera.

Eight cases of cholera have been notified in the Philippine Islands between February 11 and March 17, 1917, and three of the patients have died. In the Straits Settlements three fatal cases have occurred between February 12 and March 5, 1917. One death from cholera occurred at Batavia, in the Dutch East Indies, during the week ending March 3, 1917.

Typhus Fever.

The incidence of typhus fever during the three weeks ending February 23, 1917, is given by the United States Public Health Service as follows:—

Place.	Cases.	Deaths.
Mexico (Estimated.)	449	—
Java	117	12
Egypt	60	31
Russia	12	3
Austria-Hungary	11	1
Greece	10	—
Netherlands	2	—
Sweden	2	—
Switzerland	1	—
Great Britain	—	2
Germany	—	1
Spain	—	1

WINTER SPORT.

We have been informed that the New South Wales Government Tourist Bureau has made arrangements for a tour to the southern snowlands during the month of May. This personally-conducted tour will start on May 3, 1917, and will terminate on May 12. It is stated that a similar tour conducted during the Easter vacation was very successful. The visitors had the good fortune, contrary to expectations, to arrive after a good fall of snow. The snow had disappeared from the vicinity of the Hotel at Kosciusko, but the summit remained clad in white. There appears to be a good prospect of sufficient snow to guarantee pleasurable and healthy winter sports during the period of the next tour.

Books Received.

ENCYLOPÆDIA MEDICA, Second Edition, under the direct Editorship of J. W. Ballantyne, M.D., C.M., F.R.C.P.E.; Volume IV., Ear to Filariasis; 1916. Edinburgh and London: W. Green & Son, Ltd.; Sole Agents for India, Australia and New Zealand: Butterworth & Co. (Australia), Ltd. Royal 8vo., pp. 685. Price £1.

ANZAC MEMORIAL, Second Edition, published by The Returned Soldiers' Association, 1917. Sydney: Angus & Robertson, Limited. Demy 8vo.

Proceedings of the Australian Medical Boards.

SOUTH AUSTRALIA.

The undermentioned has been registered under the provisions of "The Medical Act 1880" as a duly qualified medical practitioner:—

Charles Edgar King, M.D., Melb., 1911.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xxiii.

Brisbane Hospital, Junior Resident Medical Officers.

Royal North Shore Hospital, Temporary Honorary Assistant Physician, Assistant Surgeon and Anæsthetist.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
TASMANIA. (Hon. Sec., Bellerive, Tasmania.)	Honorary Medical Officers in all State-aided Hospitals in Tasmania.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	Brunswick Medical Institute. Bendigo Medical Institute. Prahran United F.S. Dispensary. Australian Prudential Association Proprietary, Limited. National Provident Association. Life Insurance Company of Australia, Limited. Mutual National Provident Club.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Medical Officers to the Selwyn Hospital, North Queensland. Brisbane United Friendly Society Institute.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	The F.S. Medical Assoc., Incorp., Adelaide.
WESTERN AUSTRALIA. (Hon. Sec., 230 St George's Terrace, Perth.)	Swan District Medical Officer. All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Department of Public Instruction—Appointments as Salaried Medical Officers, with duties which include the treatment of school children. Australian Natives' Association. Balmain United F.S. Dispensary. Canterbury United F.S. Dispensary. Leichhardt and Petersham Dispensary. M.U. Oddfellows' Med. Inst., Elizabeth Street, Sydney. Marrickville United F.S. Dispensary. N.S.W. Ambulance Association and Transport Brigade. North Sydney United F.S. People's Prudential Benefit Society. Phœnix Mutual Provident Society. F.S. Lodges at Casino. F.S. Lodges at Lithgow. F.S. Lodges at Orange. F.S. Lodges at Parramatta, Penrith, Auburn and Lidcombe. Newcastle Collieries — Killingworth, Seaham Nos. 1 and 2, West Wallsend.
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, N.Z.

Diary for the Month.

May 8.—Tas. Branch, B.M.A., Council and Branch.
May 8.—N.S.W. Branch, B.M.A., Ethics Committee.
May 10.—Vic. Branch, B.M.A., Council.
May 11.—N.S.W. Branch, B.M.A., Clinical.
May 12.—S. Aust. Branch, B.M.A., Council.
May 15.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
May 16.—W. Aust. Branch, B.M.A., General.
May 16.—Western Suburbs Med. Assoc. (N.S.W.).
May 18.—Q. Branch, B.M.A., Council.
May 18.—N.S.W. Branch, B.M.A. (Branch, Extraordinary).
May 25.—S. Aust. Branch, B.M.A., Branch.
May 25.—N.S.W. Branch, B.M.A., Branch (Ordinary).
May 25.—S. Aust. Branch, B.M.A., Branch.
May 25.—N.S.W. Branch, B.M.A., Branch, Ordinary.
May 29.—N.S.W. Branch, B.M.A., Med. Politics Committee; Organization and Science Committee.
May 30.—Vic. Branch, B.M.A., Council.
June 1.—Q. Branch, B.M.A., Branch.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this Journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.

All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney, New South Wales.